

**SCIENTIFIC COUNCIL DSc.11/25.08.2022.I.24.03. FOR AWARDING  
SCIENTIFIC DEGREES AT THE UNIVERSITY OF WORLD ECONOMY  
AND DIPLOMACY UNDER THE MINISTRY OF FOREIGN AFFAIRS OF  
THE REPUBLIC OF UZBEKISTAN**

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**THE UNIVERSITY OF WORLD ECONOMY AND DIPLAMACY**

**KARIMOVA KHULKAR RAKHMANALI KIZI**

**MECHANISMS OF IMPROVING THE PRODUCTION AND EXPORT OF  
FRUIT AND VEGETABLES IN UZBEKISTAN CORRESPONDING TO  
THE WORLD MARKET REQUIREMENTS**

**08.00.09 – World economy**

**ABSTRACT**  
**of doctor of philosophy (phd) dissertation in economic sciences**

**Tashkent – 2023**

**Content of dissertation abstract of doctor of philosophy (PhD) on economical sciences**

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**Оглавление автореферата диссертации доктора философии (PhD) по экономическим наукам**

**Karimova Xulkar Rakhmanali kizi**

Mechanisms of improving the production and export of fruit and vegetables in Uzbekistan corresponding to the world market requirements ..... 3

**Karimova Xulkar Raxmanali qizi**

O'zbekistonda meva-sabzavot yetishtirish va eksport qilishni jahon bozori talablariga mos ravishda takomillashtirish mexanizmlari ..... 23

**Каримова Хулкар Рахманали кизи**

Механизмы совершенствования производства и экспорта фруктов и овощей в Узбекистане в соответствии с требованиями мирового рынка..... 45

**List of published works**

E'lon qilingan ishlar ro'uxati  
Список опубликованных работ ..... 49

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**Scientific supervisor:** **Sultanova Gavkhar Karimovna**  
Candidate of economic sciences, Associated professor

**Official opponents:** **Pierre Borgoltz**  
Doctor of economic sciences, Professor

**Yunusov Nosirjon Sobirovich**  
Doctor of economic sciences

**Leading organization:** **Tashkent state agrarian university**

The defense of the thesis will take place on "\_\_\_"2023 at \_\_\_ at the \_\_\_ meeting of the Scientific Council No. DSc.11/25.08.2022.I.24.03. at the University of World Economy and Diplomacy under the Ministry of Foreign Affairs of the Republic of Uzbekistan. Address: 100007, Mirzo Ulugbek distr, Mustakilli Ave., 54. Tel.: (99871) 267-39-50, e-mail: rektorat@uwed.uz).

The dissertation is available at the University of World Economy and Diplomacy under the Ministry of Foreign Affairs of the Republic of Uzbekistan (Registration No\_\_\_). 100007, Mirzo Ulugbek distr, Mustakilli Ave., 54. Tel.: (99871) 267-39-50, e-mail: rektorat@uwed.uz).

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**I.R.Mavlanov**  
Chairman of the Scientific Council  
on award of academic degrees,  
Doctor of economic sciences,  
Professor

**L.M.Tashpulatova**  
Secretary of the Scientific Council  
for the awarding of academic  
degrees, Candidate of economic  
sciences, Associated professor

**N.Sirajiddinov**  
Chairman of the Scientific Seminar  
of the Scientific Council on award  
of academic degrees, Doctor of  
economic sciences, Professor

## Introduction

Agriculture is important in the Uzbek economy, employing just above a quarter of the workforce and accounting about a quarter of GDP. Uzbekistan not only meets domestic demand, but it also exports agricultural products and has great potential in this sector.

The government of Uzbekistan is actively working on the development of this sector and implementing a number of reforms, policies. Sustainable development of the Republic of Uzbekistan's agriculture and food chain necessitates the implementation of state policy based on novel approaches. A number of the main legal documents to undertake this task are a Decree “On Uzbekistan’s Development Strategy” which approves Uzbekistan’s Five-Area Development Strategy for 2017- 2021, “Strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030” based on Decree of the President of the Republic of Uzbekistan №. PD -5853 of October 23, 2019, a Decree of the President №. 60 of January 28, 2022 “About the Development Strategy of New Uzbekistan for 2022-2026”, a resolution of the President of the Republic of Uzbekistan dated March 14, 2019 №. PP-4239 "On measures to develop agricultural cooperation in the field of fruit and vegetable growing” and a resolution of the President of the Republic of Uzbekistan dated December 11, 2019 №. PP-4549 "On additional measures for further development of the fruit and vegetable and viticulture sector, the creation of value chains in the industry".

The main directions of these documents related to agriculture sector are to fundamentally improve state policy while deepening reforms aimed at increasing the competitiveness of the agriculture and food industry, and they cover the following priority areas:

Liberalization and facilitation of export activities, diversifying the export structure and geography, and expanding and mobilizing the export potential of economic sectors and regions;

Reducing state participation in industry management and increasing investment attractiveness;

Development of the system of agricultural science, education, information, and consulting services;

Gradual diversification of government spending aimed at supporting the sector;

Development of a transparent system of the sector statistics;

Providing the establishment of specialized cooperatives on the basis of farms and dehkan farms operating in fruit-growing areas and increase its efficiency;

Introducing advanced technologies in the production, storage, processing and sale of fruit and vegetables and the need to encourage the development of cooperatives and increase the efficiency of producers of these products;

International agricultural trade is a significant driver of economic growth in developing countries, particularly in Uzbekistan, where agricultural commodities account for a significant portion of exports. Uzbekistan's government places a high priority on the development of the fruit and vegetable production. However, the

full extent of the available potential has yet to be revealed. Despite the fact that Uzbekistan exported 1.4 million tons of fruits and vegetables worth 903.3 million dollars in 2022, 192 thousand ton increase comparing to the same period last year , the fruit and vegetable export in Uzbekistan's total export has been maintaining the stable share (at around 7 %)<sup>1</sup> . Farmers lack the most recent knowledge and experience in growing, storing, and exporting fruit and vegetable crops using modern technologies.

It is also possible to achieve Sustainable Development Goals (SDG) 8 ("Decent work and economic growth") and SDG 1 ("No poverty") with increasing agricultural productivity by accelerating market reforms in agriculture. In turn, trade facilitation - simplification, modernization and harmonization of export and import processes is an important issue for the world trade system. By increasing trade facilitation and achieving the Sustainable Development Goals, Uzbekistan can benefit from fruit and vegetable exports, increase the sector's competitiveness, and achieve overall prosperity.

Addressing the issues surrounding the unstable state of the fruit and vegetable export subsector in Uzbekistan, despite rising global demand, is critical. Although many empirical studies on the overall export sector have been conducted, key issues concerning the instability and diversification of the fruit and vegetable export subsector in Uzbekistan have not been documented. Thus, in order to identify the key issues of fruit and vegetable export diversification in Uzbekistan, it is necessary to first identify the patterns of fruit and vegetable export growth, instability, and export structure of products and markets.

Considering the current trends in Uzbekistan's fruit and vegetable trade and the gap in the literature, the overall goal of this paper is to analyze Uzbekistan's fruit and vegetable export performance in the international market and to identify important factors affecting fruit and vegetable export composition for the period 2017-2020. Furthermore, the primary contribution of this work is to justify the theoretical foundation of using the gravity model in applied export research.

**Relevance of the topic on the priority directions of the development of science and technology of the Republic.** This study was carried out in accordance with the priority direction №1 of the development of science and technology of the Republic of Uzbekistan “Spiritual, moral and cultural development of a democratic and legal society, formation of an innovative economy”.

**The degree of knowledge of the problem.**

Scientific and practical aspects of production and export potential of fruit and vegetables in Uzbekistan have studied by S.Topildiyev<sup>2</sup> analyzing historical stages of development of agrarian relations, in the Republic of Uzbekistan, stressing on modernization of agriculture, the legal framework for the improvement, thus leading to develop scientific and practical recommendations aimed at improving agricultural productivity in the medium term. In addition, the ways to fulfill the key goals outlined in the “Strategy for Actions” in five priority areas of

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<sup>1</sup> The State Committee of Republic of Uzbekistan on statistics

<sup>2</sup> Topildiyev Sohijjon. ( 2011).- *Historical Perspectives of Development of Agrarian Relations in Uzbekistan* / Auto report Tashkent

development of the Republic of Uzbekistan in 2017-2021 were studied. F.Nazarova, R.Toshmatov, B.Zaripov, M.Rahmatov, X.Urdushev, A.Qulmatov, Sh.Kimsanboeva, B.Sindarov, A.Ergashev<sup>3</sup>, B.Usmonov, F.Raximov, T.Yusupov, O. Bafoyev, Ch.Muradov, Sh.Hasanov, I.Ganiev and M.Muradova<sup>4</sup> have studied the fruit and vegetable sector production efficiency through the theoretical aspects and practical significance of the organization of production on the basis of the cluster system. N. Yuldashev, V. Nabokov, K.Nekrasov, and B. Tursunov studied innovative development directions of agro-industrial complex of Uzbekistan and management of its export potential in the modernization and digitalization conditions. A. Ergashev<sup>5</sup> investigated the existing constraints and opportunities to improve the availability and accessibility of fruit and vegetables as a key determinant of healthy diet, Donald F. Larson<sup>6</sup> studied the horticulture and developed practical recommendations based on cost and margin approach, identified main barriers to hinders activities of fruit and vegetable producers, A. Durmanov, A. Tillayev, S. Ismayilova, X. Djamilova and Sh. Murodov<sup>7</sup> proposed a model for agricultural production optimization, which will allow enterprises to increase their production profitability, built on a number of restrictions. Y. Chazova<sup>8</sup> studied the aspect of vegetable's consumer demand of closed ground. The author's findings are vital in mathematical modeling of greenhouse vegetable crops. N.Medvedeva<sup>9</sup> approached the forecasting of cycles and crises in overall agricultural products. However, the author made a generalized forecasting model for agricultural commodities. S. Umarov<sup>10</sup> highlighted the innovative irrigation problems within greenhouses of Tashkent region of Uzbekistan.

Mainly, prior researches are mainly focused on the analyzing the sector of agriculture as a whole and no solid econometric modeling assessing the determinants of fruit and vegetable trade and its potential have not been formulated yet. Therefore, it is important to conduct research on the further development of the fruit and vegetable sector, identify main trade determinants and its potential.

**The relation of the dissertation topic with the scientific research plans of the higher education institution where the dissertation was conducted in.** The

<sup>3</sup> Alisher Ergashev, (2014). *Why Fruit and Vegetable Production is Not Fruitful for Uzbek Farmers*, IAMO, Zentrum für Entwicklungsforschung (ZEFb), University of Bonn, Germany.

<sup>4</sup> Ch.Murodov, Sh.Hasanov, I.G'aniev, M.Murodova, (2014). *Directions for using the experience of South Korea in the organization of agro-clusters*. Collection of abstracts of the Republican scientific-practical conference "Improving the competitiveness and export potential of the agro-industrial complex of Uzbekistan." TSUE,167-173p.

<sup>5</sup> Alisher Ergashev, (2014). *Why Fruit and Vegetable Production is Not Fruitful for Uzbek Farmers*, IAMO, Zentrum für Entwicklungsforschung (ZEFb), University of Bonn, Germany.

<sup>6</sup> Donald F. Larson, . (2012). *Uzbekistan Strengthening the Horticulture Value Chain*, World Bank.

<sup>7</sup> Urmanov Akmal Shaimardanovich; Tillayev Alisher Xasanovich; Ismayilova Suluxan Sarsenbayevna; Djamilova Xulkar Sayorovna and Murodov Sherzodbek Murod ogli.(2019). *Economic-mathematical modeling of optimal level costs in the greenhouse vegetables in Uzbekistan* , Vol. 40 (Number 10). 20-p.

<sup>8</sup> Chazova, I.Yu. (2009). Forecasting consumer demand for vegetable products of closed ground. *AIC: Economy, Management*, 4, 52-57-p.

<sup>9</sup> Medvedeva, N.A. (2015). Forecasting of cycles and crises in agriculture. *Bulletin of the Agrarian and Industrial Complex of Stavropol Territory*, 3 (19), 208-211-p.

<sup>10</sup> Umarov S.R. (2017). Innovative development and main directions of water management. *Scientific Electronic Journal "Economics and Innovative Technologies"*, 1, January February [http://www.iqtisodiyot.uz/sites/default/files/maqolalar/6\\_S\\_Umarov.pdf](http://www.iqtisodiyot.uz/sites/default/files/maqolalar/6_S_Umarov.pdf)

dissertation work was carried out in accordance with the research plan of the University of World Economy and Diplomacy – on the topic “Issues of innovative development of the national economy in the conditions of integration into the world”.

**The main objective of the research work:**

The purpose of the dissertation is to develop recommendations on the improvement of mechanisms of fruit and vegetables production and export in Uzbekistan in line with world market standards.

**Specific tasks of the research work:**

1. Summarize trade theories and link them to agriculture sector.
2. Examine gravity theory to identify if it is as an optimal tool to assess agriculture trade.
3. Analyze world agriculture trade and standards for minimum quality specifications.
4. Analyze institutional framework of the agriculture sector and its trade in the Republic of Uzbekistan.
5. Assess the trend of development of the fruit and vegetables sector and their exports in the Republic of Uzbekistan.
6. Evaluate export determinants of fruit and vegetables in the Republic of Uzbekistan with Gravity model approach and calculate export potential (market diversification);
7. Classify the key issues concerning production growth, its development and develop possible remedies scheme of increasing production of the fruit and vegetables sector in the Republic of Uzbekistan.
8. Identify the key questions concerning export development and diversification and develop improving mechanisms of Uzbek fruit and vegetables exports promotion to foreign markets;
9. Formulate policy recommendations and future directions of improving production and export of fruit and vegetables in Uzbekistan.

**The object of the research work** is fruit and vegetables sector of the Republic of Uzbekistan.

**The subject of the research work** is the mechanism of development of production and export of fruit and vegetable products in the Republic of Uzbekistan to meet world market standard.

**Research methods:** The methods of comparative, quantitative, structural analysis and synthesis, econometric modeling are employed. The basic statistical data are analyzed on the basis of comparative analysis. The developed model is constructed with aggregate data on the State Committee of the Republic of Uzbekistan on Statistics, the World Development Indicators database, the Trade Map database of International Trade Centre and the Centre d'Études Prospectives et d'Informations Internationales (CEPII, 2020) with the help of Stata application employing traditional gravity model of trade.

**Scientific novelty of the research work is as follows:**

Developed a systematic scheme of the theory of gravity in agriculture based on data, methods and results of systematization of classical and modern scientific literature on the theory of trade in the agriculture sector;

Calculated the coefficients of elasticity of fruit and vegetable export determinants based on the traditional gravity model using pooled OLS, Fixed-effects, Random-effects, Hausman-Taylor and PPML methods; computed the export potential of the fruit and vegetable sector of the Republic of Uzbekistan;

Developed a set of systemic measures to eliminate the main problems and shortcomings in the production and export of the fruit and vegetable sector in the Republic of Uzbekistan;

Developed recommendations for further expansion of production and export of the fruit and vegetable sector in Uzbekistan in accordance with foreign experience.

**The practical results of the research work are as follows:**

Study results could be implemented further in developing policy recommendations for improving and reforming agriculture sector, mainly fruit and vegetables subsector. In addition, other sectors which are directly and indirectly connected with it: banking, marketing, handling and logistics. Results could be used by the Ministry of Agriculture and Ministry of Investment, Industry and Trade of the Republic of Uzbekistan, Export promotion agency under the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan, Agricultural departments of khokimiyats.

**Reliability and validity of the research results.**

The reliability of scientific results is due to the use of an information base obtained from official sources, in particular the State Committee of the Republic of Uzbekistan on Statistics, the World Development Indicators database, the Trade Map database of International Trade Centre and the Centre d'Études Prospectives et d'Informations Internationales (CEPII, 2020), reports of international organizations: FAO, OECD. The validity of the research results is based on the use of modern econometric research methods, proven methods of international organizations, as well as the reliability of the developed proposals and recommendations, their use in the adopted regulations to improve the production and exports of fruit and vegetables.

**Scientific and practical significance of the research results** of the work is determined by the relevance of the objectives and its practical focus on the solution of the problems. The scientific and practical significance of the work lies in the fact that the methodological approaches and proposed concepts can be used in the development of the fruit and vegetables sector, more precisely, for the improvement of the economic mechanism of the increase of exports and production. Methodological approaches developed by the author fill the gaps in the study of the agri food sector and key factors and mechanisms to improve the export strategy. The proposed approach to the evaluation of the export potential of the sector analyzes key determinants of fruit and vegetables exports and is used to identify strategies to diversify export destinations. In a concluding part, the study provides possible policy recommendations to develop production and exports of fruit and vegetables, leading to boost competitiveness of these directions.

### **Implementation of the research results.**

The results of the study and the recommendations proposed by the author can be used by the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan, the Export Promotion Agency under the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan, as well as other interested parties, including foreign organizations such as the World Trade Institute (WTI) when developing reform measures aimed at expanding the production and export of fruits and vegetables. The findings of the study can also be used in the process of Uzbekistan's accession to the WTO.

The recommendations developed during the study have been implemented for use by the Export Promotion Agency under the Ministry of Investment, Industry and Trade of the Republic of Uzbekistan to ensure the effective implementation of government regulations: Decree of the President of the Republic of Uzbekistan No. PP-4525 dated 11.20.2019 - "On measures to further improve the business environment and improve the entrepreneurship support system in the country", Decree of the President of the Republic of Uzbekistan No. PP-4337 dated 05.24.2019. - "On measures to expand the mechanisms for financing and insurance protection of export activities", Decree of the President of the Republic of Uzbekistan No. PQ-4069 dated 20.12.2018 "On measures to support export and strengthen its promotion", Decree of the President of the Republic of Uzbekistan dNo. PQ-4239 ated 14.03.2019 "On measures to develop agricultural cooperation in the field of fruit and vegetable production", Decree of the President of the Republic of Uzbekistan No. PQ-4949 dated 14.01.2021 "On measures to implement the export potential of the Republic of Uzbekistan in 2021" and Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 826 dated 31.12.2020 "On approval of the regulation on the procedure for providing financial assistance to exporting organizations by the export promotion agency under the Ministry of Investments and Foreign Trade of the Republic of Uzbekistan", Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 618 dated 04.10.2021 "On approval of the regulation on the procedure for compensating a part of the costs of transporting products when exporting":

Increase knowledge and literacy of business entities in the field of foreign economic activity;

Implementation of a scientific approach in the production of export-oriented products, including harvesting, processing and storage of fruits and vegetables;

Updating the production system by assisting in the certification and standardization, as well as the introduction of certification systems in the country;

Increasing the awareness of Uzbek brands abroad;

Furthermore, the proposals are used in implementation of such projects as "Made in Uzbekistan" to promote the brand "Made in Uzbekistan", "National Electronic Commerce System of Uzbekistan" ("NETP") to promote Uzbek brands and goods in the foreign markets (Acts No. 05-12-2/12-69 of November 8, 2022 and No. 39-03/08/-1/4596 of December 6, 2022).

The Export Promotion Agency under the Ministry of Investments, Industry and Trade of the Republic of Uzbekistan used the results of the dissertation in the

process of developing state export development programs of the Republic of Uzbekistan to introduce new approaches and mechanisms to support and facilitate export activities.

The proposed recommendations were used in the process of a practical study "Uzbekistan's membership in the WTO: problems and opportunities (on the example of the agro-industry of Uzbekistan)", conducted with the participation of international experts from the World Trade Institute and the World Trade Organization.

**Approbation of the results of scientific research.** The main scientific and practical results of the dissertation are to be presented as 15 reports at scientific and practical conferences, 9 of them at international and 6 at national events.

**Publication of research results.** Published 8 scientific papers, including: 3 articles in journals according to the list of the Supreme Attestation Commission of the Republic of Uzbekistan, including 5 articles abroad and 3 articles in the Republican journals, and 7 works at scientific-practical events.

**The structure and scope of the dissertation.** The dissertation consists of an introduction, three chapters and 9 paragraphs, a conclusion, a reference list and appendices. The volume of the dissertation is 168 pages, including appendices.

## THE MAIN CONTENT OF THE DISSERTATION

In the introductory part of the dissertation, the relevance of the research topic is based, the purpose, tasks, object and subject of the research are determined, the relevance of the research topic to the priority directions of the development of science and technology of the republic is shown, and the scientific novelty and practical results of the research are described. The scientific and practical significance of the obtained results is explained, the implementation of the research results into practice, the published works and information on the structure of the dissertation are given.

**The first chapter of the dissertation** "Theoretical framework of fruit and vegetable production and export in relation to the world market requirements", in which theories of international trade in agriculture and their applications, a theoretical framework of agriculture trade through gravity approach, global trade patterns in fruit and vegetables with an overview of standards for minimum quality specifications are studied. At the end of the chapter, a summary about this chapter is presented.

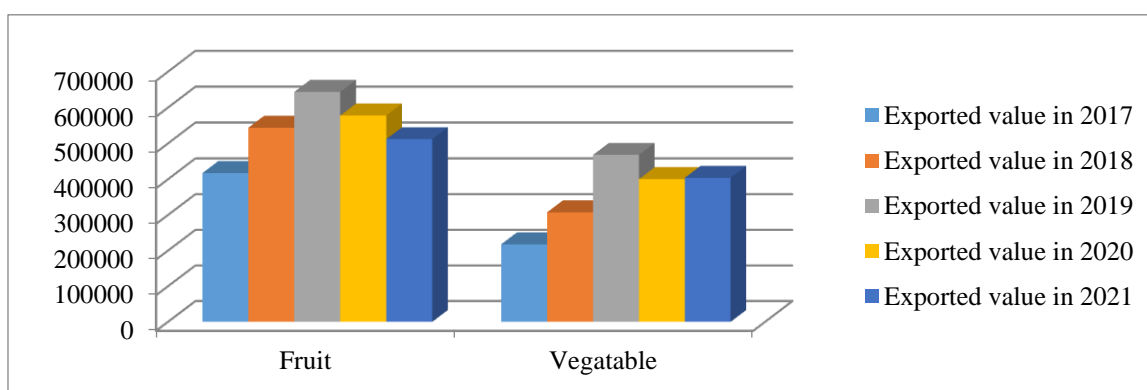
International trade was researched by many well-known economists. The Mercantilist theory, A. Smith's Theory of Absolute Advantages, D. Ricardo's Theory of Comparative Advantages and D. Mill's Theory, Heckscher – Olin's Theory, Leontiev Paradox, R. Vernon's The Goods Life Cycle Theory, M. Porter's Theory, Rybchinsky's Theorem, and Samuelson and Stolper Theory, The Gravity Theory are common theories of international trade.

Given the shortcomings of various trade theories in explaining trade in the fruit and vegetable sector, the Gravity trade theory comes into play, which is based primarily on the assumption that trade volume is generated by mass or economic

size in the importing country, which is proxied by GDP (the gravitational force), and is inhibited by distance (friction). The gravity model is one of the models that have only recently acknowledged the role of transportation costs as a determinant in international trade.

According to the basic gravity model, the value of bilateral trade flows is positively related to the countries' income and negatively affected by the distance between them. Taking especially trade determinants like common borders, landlocked countries, and island countries, common language, common colonizer, common traditional roots as controlling and effecting determinant of trade could be explained as in Uzbekistan, a durable system of laws, institutions, norms, and community commitment have great impact on any business sphere, especially fruit and vegetables export system. The gravity model estimated by OLS, Fixed effects, Random effects and PPML methods as proper remedies for statistical and econometric shortcoming connected with data. Thus, employed methodology could be a prerequisite to assess the export potential of fruit and vegetables in Uzbekistan.

**The second chapter of the dissertation** “Analysis of the fruit and vegetables sector development in Uzbekistan and evaluation of the factors determining its export” analyzed the institutional framework of the agriculture sector and exports of fruit and vegetables in the Republic of Uzbekistan, the trend of development of the fruit and vegetables sector and their exports in the Republic of Uzbekistan and factors effecting the exports of the fruit and vegetables in the Republic of Uzbekistan and trade potential, following with an summary at the end.



**Pic. 1. Export of fruit and vegetables of the Republic of Uzbekistan**

Source: Author computation based on The State Committee of Republic of Uzbekistan on statistics.

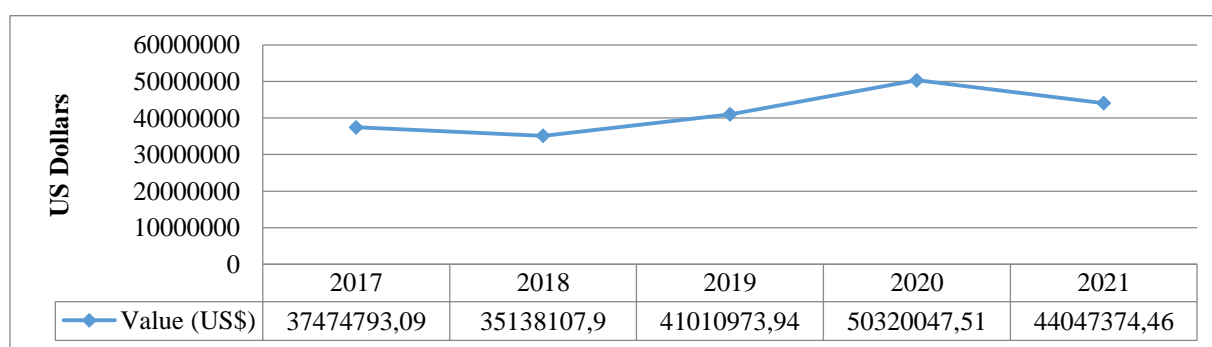
Uzbekistan's fruit and vegetable exports account for 0.4 percent and 0.5 percent of global exports, respectively; the country ranks 41st and 26th in the world for these products<sup>11</sup>. Pic. 1. depicts a steady increase in Uzbekistan's fruit and vegetable exports, which increased from 417236 thousand USD and 217701 thousand USD in 2017 to 643679 thousand US dollars and 468064 thousand USD in 2019. In 2020, Uzbekistan exported over 1.4 million tons of fruit and vegetables worth just under \$1 billion USD. However, the amount decreased by 16.5 percent

<sup>11</sup> The International Trade Centre (ITC)

compared to the same period last year: fruit and berry exports totaled 402,300 tons worth 577 825 thousand USD, while vegetable exports totaled 768,300 tons worth 400431 thousand USD. However, due to the global pandemic COVID-19, exports in these categories saw a 15.1 percent and 13 percent decrease in value, respectively. This downward trend continued in 2021, with 511759 thousand and 404080 thousand USD.

For the period 2017-2021, the main consumers of Uzbek fruit and vegetable exports were the Russian Federation, Kazakhstan, Kyrgyzstan, Pakistan, and China, with a stable increase in value and volume despite a shift in 2020 due to a global pandemic<sup>12</sup>.

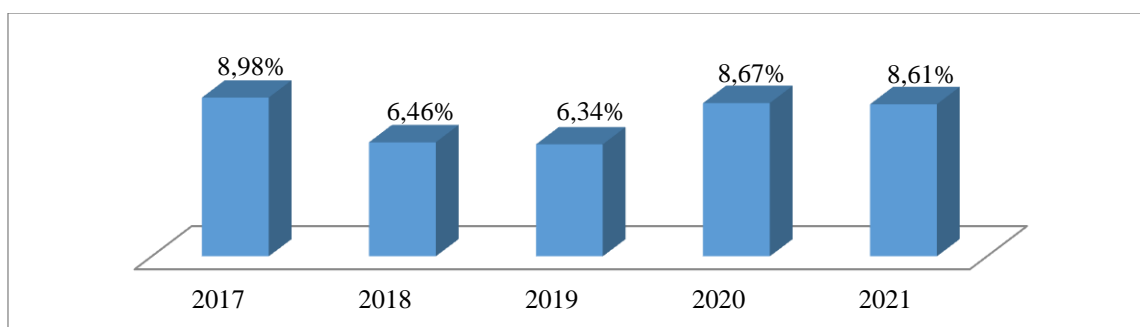
As for export product diversification, Uzbekistan is mainly exporting apricots, grapes, strawberries, and melons while generating almost more than three quarters of the whole export value, while dried leguminous, tomatoes, onions are the main vegetables for the external markets at more than 75 percent, with significant growth between 2017-2021 by almost a third and a half correspondingly<sup>13</sup>.



**Pic. 2. Export value of dried fruit (US\$)**

Source: Author computation based on statistics of Trend Economy.

The value of exports of commodity of dried fruit from Uzbekistan totaled 44 million US dollars in 2021, decreasing by 12.4% in value terms compared to 2020. Export of dried fruit amounted 0.312 % of total export and 8.6% of total fruit export from Uzbekistan respectively (Pic. 2. and Pic. 3.).



**Pic. 3. Export share of dried fruit in total fruit export**

<sup>12</sup> Despite the fact that the pandemic affected export volumes to all destinations, the Russian Federation maintained a dominant position in fruit exports with an increasing trend; exports of 185,621 million USD nearly doubled compared to the previous year. In terms of vegetable exports to the Russian Federation, the figures are relatively stable with a growth of 66,751 million USD (14.8 percent growth compared to the same period of the previous year).

<sup>13</sup> The State Committee of Republic of Uzbekistan on statistics

Source: Author computation based on statistics of Trend Economy.

Top destinations for dried fruit from Uzbekistan are mainly CIS countries: Russian federation, Kazakhstan, Turkey, Ukraine and Belarus, amounting for more than three quarters of export of dried fruit in 2021<sup>14</sup>. As for export structure of dried fruit, dried prunes, mixture of nuts, apples, apricots and dried peaches, pears, papaws "papayas" are exporting commodities, with more than a third percent exporting prunes in 2021<sup>15</sup>.

In comparing the share of fruit and vegetable exports with Uzbekistan's total exports, fruit and vegetable export averaged 7.3 percent of Uzbekistan's total exports in 2017-2020. This share fluctuated slightly over the studied period and ranged from a minimum value of 6.29 percent in 2017 to a tiny increase to nearly 7.67 percent in 2018<sup>16</sup>.

**Factors affecting the exports of the fruit and vegetables in the Republic of Uzbekistan.** The basic gravity model denotes that the value of bilateral trade flows is positively related to the income of the countries and negatively affected by the distance between them. Besides distance, a number of other variables: common borders, landlocked countries, and island countries, which imply the role of transport costs, common language, adjacency, and colonial history to capture information costs in bilateral trade, are generally used to estimate the effect of trade costs. The impact of trade barriers is generally evaluated by including the dummies for the presence of regional trade agreements and WTO membership.

In case of Uzbekistan, after including the variable characterizing the quality of institutions in economies and dummy variables for information costs of trade in the log-log regression model, it can be written as follows:

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6 (ROL_{it}) + \alpha_7 (ROL_{jt}) + \alpha_8 Comcol_{ij} + u_{ijt} \quad (1)$$

where  $ROL_{it}$  and  $ROL_{jt}$  is the Rule of Law index of country i and country j,  $Comcol_{ij}$  is common colonizer dummy which takes value of 1 if country i and country j had common colonizer and 0 otherwise.

Pooled OLS should be viewed as a simple benchmark against which more complex models can be compared or built. Because it combines observations from cross sections and time series, this method ignores the panel data structure entirely. This omission can result in distorted estimates, as demonstrated by e.g. Cheng and Wall (2005).

The fixed effects (FE) model is used with panel data in order to explore the relationship between predictor and outcome variables within the pair of countries<sup>17</sup>:

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} +$$

<sup>14</sup> Trend Economy

<sup>15</sup> Trend Economy

<sup>16</sup> The State Committee of Republic of Uzbekistan on statistics.

<sup>17</sup> FE models allows one to control for the influence of time invariant individual characteristics of pair of countries on predictor variables by including individual intercepts in the model.

$$\alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Comcol_{ij} + \alpha_{ij} + u_{ijt} \quad (2)$$

where,  $\alpha_{ij}$  is the unknown intercept for each pair of countries.

In this case, the fixed effects model is not a good choice because it produces inefficient estimates. As a result, in addition to the fixed effects model, there is a random effects model that operates under contradictory assumptions<sup>18</sup>.

The random effects estimation of the gravity model can be specified as follows:

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Comcol_{ij} + u_{ijt} + \varepsilon_{ijt} \quad (3)$$

where,  $u_{ijt}$  is between country-pair error term,  $\varepsilon_{ijt}$  is within country-pair error term, which are assumed to be uncorrelated with the explanatory variables.

The Hausman-Taylor (1981) method was proposed to overcome this unobserved heterogeneity problem. This method is an instrumental variable technique that solves endogeneity problems using only information contained in the model.

One of the main gravity modeling issues is the problem of zero-trade flows. In the log-log regression model, zero trade flows are dropped out of the estimation. Zero trade means that no positive trade value was reported between the two countries (Kabir et al., 2017).

The Poisson Pseudo-Maximum-Likelihood (PPML) estimator, recommended by Santos Silva and Tenreyro as a tractable and apparently robust alternative approach to estimation, has already been widely adopted in estimation of gravity equations (see, for example, Westerlund and Wilhelmsson, 2007; Xuepeng Liu, 2007); Hebble, Shepherd, and Wilson, 2007)<sup>19</sup>.

Following Westerlund and Wilhelmsson (2006), the PPML estimation of gravity model can be specified as follows:

$$X_{ij} = \exp\{\alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Comcol_{ij} + u_{ijt}\} \quad (4)$$

The dataset was collected for Uzbekistan and its 81 trade partners for the period from 2017 to 2020. The total number of observations included in the analysis amounted to 324. Zero trade values constituted 70 observations, which accounted for 21.6 percent of total observations. In summary, the annual data covers 81 countries for the years 2017-2020 with one dependent variable and eight explanatory variables (a total of N=324, n=81, T=4).

A panel data was constructed with aforementioned variables. Panel data and panel econometric methods are increasingly being used in gravity modeling (c.f.

<sup>18</sup> The random effects (RE) model allows for the estimation of time-invariant effects, assuming that variation across a pair of countries is random and uncorrelated with the predictor variables.

<sup>19</sup> First, the Poisson model accounts for observed heterogeneity. Second, because of its multiplicative form, the fixed effects PPML estimation technique provides a natural way to deal with zero valued trade flows. Third, by generating estimates of trade flows rather than the log of trade flows, the method avoids under-prediction of large trade volumes and flows. The coefficient of the dummy variable is interpreted as semi-elasticity, which is calculated by taking its exponential and subtracting one from it:  $(\exp(\alpha)-1)*100\%$ .

Egger, 2000; Rose and van Wincoop, 2001; Baltagi, 2003; Egger and Pfaffermayr, 2003; Egger and Pfaffermayr, 2004; Melitz, 2007; and many others). The panel specification is far more appropriate because the additional time series data points provide more degrees of freedom, resulting in more accurate estimates.

The estimation results of the gravity model by OLS, fixed effects, random effects, and the Hausman-Taylor methods are presented in Table 1. Results of the fixed effects model in column 3 of Table 1. allows the country-specific effects to be correlated with the regressors<sup>20,21</sup>. The estimation results of the Hausman-Taylor method presented in the fifth column of Table 1. resolves the problem of correlation between explanatory variables with the unobserved random effects.

**Table 1.**

**Gravity model estimation results**

	(1)	(2)	(3)	(4)
VARIABLES	Pooled	Fixed effects	Random effects	Hausman-Taylor
GDP per capita_partner (log)	0.771** (0.367)	0.556 (0.953)	0.771** (0.367)	0.853 (0.744)
GDP per capita_reporter (log)	2.637*** (1.003)	2.090* (1.103)	2.637*** (1.003)	2.114** (0.927)
Population_partner (log)	0.976*** (0.131)	-3.911 (6.479)	0.976*** (0.131)	1.318** (0.626)
Population_reporter (log)	1.488 (4.624)	4.041 (5.420)	1.488 (4.624)	3.088 (4.407)
Distance (log)	-1.734*** (0.395)	-	-1.734*** (0.395)	-3.853** (1.899)
Rule of law_partner	-0.985** (0.442)	1.497 (1.288)	-0.985** (0.442)	1.469 (1.064)
Rule of law_reporter	12.53*** (4.470)	12.10** (5.723)	12.53*** (4.470)	11.09** (4.709)
Common colonizer	2.692*** (0.536)	-	2.692*** (0.536)	3.200 (2.963)
Constant	-35.54 (81.54)	-6.054 (133.3)	-35.54 (81.54)	-51.01 (81.15)
Observations	240	240	240	240
P > chi 2	0.0000	0.0015	0.0000	0.0000
R-squared	0.593	0.127	0.634	
Number of pairid	77	77	77	77

**Note: Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1**

Source: Author's estimation.

The results obtained from the Hausman-Taylor model indicates that an increase in Uzbekistan's GDP per capita causes an increase in the export value of

<sup>20</sup> The result of the F-test ( $F(76, 157) = 15.52$ ) indicates that the null hypothesis of equality of individual effects is rejected and therefore the fixed effects model is better than the pooled model.

<sup>21</sup> The time dummies incorporated into the fixed effects model equation captures the positive impact of economic reforms (i.e. currency market liberalization) performed in Uzbekistan after the election of Shavkat Mirziyoyev as the president of the republic at the end of 2017, as well as the negative impact of pandemic on the production and exports of agricultural products in 2020. However, all time dummies were omitted from the model because of collinearity.

fruit and vegetables. This means that, *ceteris paribus*, a 1 percentage point increase in Uzbekistan’s per capita income will result in a 2.1 percentage point increase of fruit and vegetable exports. Holding constant for other variables, a 1 percentage point increase in the population of the importing country will result in a 1.3 percentage point increase in the export of fruit and vegetables from Uzbekistan. The positive effect of GDP per capita of Uzbekistan and the importing country’s population on exports is consistent with the basic assumptions of the gravity model.

The regression result of the gravity model, estimated through PPML by including zero trade observations:

$$Exportvalue_{it} = -34.42 + 0.292\log(GDP_{jt}) + 0.249\log(GDP_{it}) + 5.726\log(Pop_{jt}) - 2.076\log(Pop_{it}) - 2.025\log(Dist_{ijt}) + 2.884ROL_{jt} + 7.943ROL_{it} + 3.627Com.Col._{jt} + u_t \quad (5)$$

In the PPML model, effects of the reporter and partner country’s GDP per capita on fruit and vegetable exports is positive and statistically significant at the 1 percent level. The coefficients of these variables are close to each other and amount to 0.248 and 0.29 respectively. The effect of the importer country’s population is statistically significant at the 1 percent level. Other things being equal, a 1 percentage point increase of the partner county’s population will result in 6 dollars increase of fruit and vegetable exports from Uzbekistan.

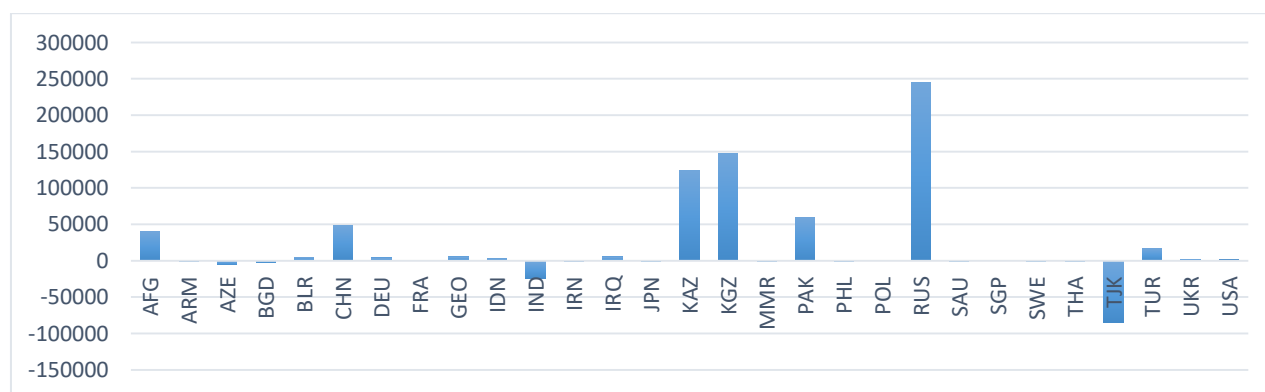
**Export potential.** To measure the Uzbekistan’s fruit and vegetable potential, we have introduced the concept of export potential indicator (EPI):

$$EPI_{ij} = EVE_{ij} - PVE_{ij} \quad (6)$$

Where,  $EVE_{ij}$  is real value of fruit and vegetable export from Uzbekistan to partner countries in 2020;  $PVE_{ij}$  is a projected value of fruit and vegetable export from Uzbekistan to partner countries in 2020;

$$PVE_{ij} = \exp(\text{Predicted export value}_{ij}); \quad (7)$$

$$\begin{aligned} \text{Predicted export value} = & -35.54 + 0.771\log(GDP_{jt}) + 2.637\log(GDP_{it}) + \\ & + 0.796\log(Pop_{jt}) + 1.488\log(Pop_{it}) - 1.734\log(Dist_{ijt}) + 0.985ROL_{jt} + \\ & + 12.53ROL_{it} + 2.692Com.Col._{jt} + u_t \quad (8) \end{aligned}$$



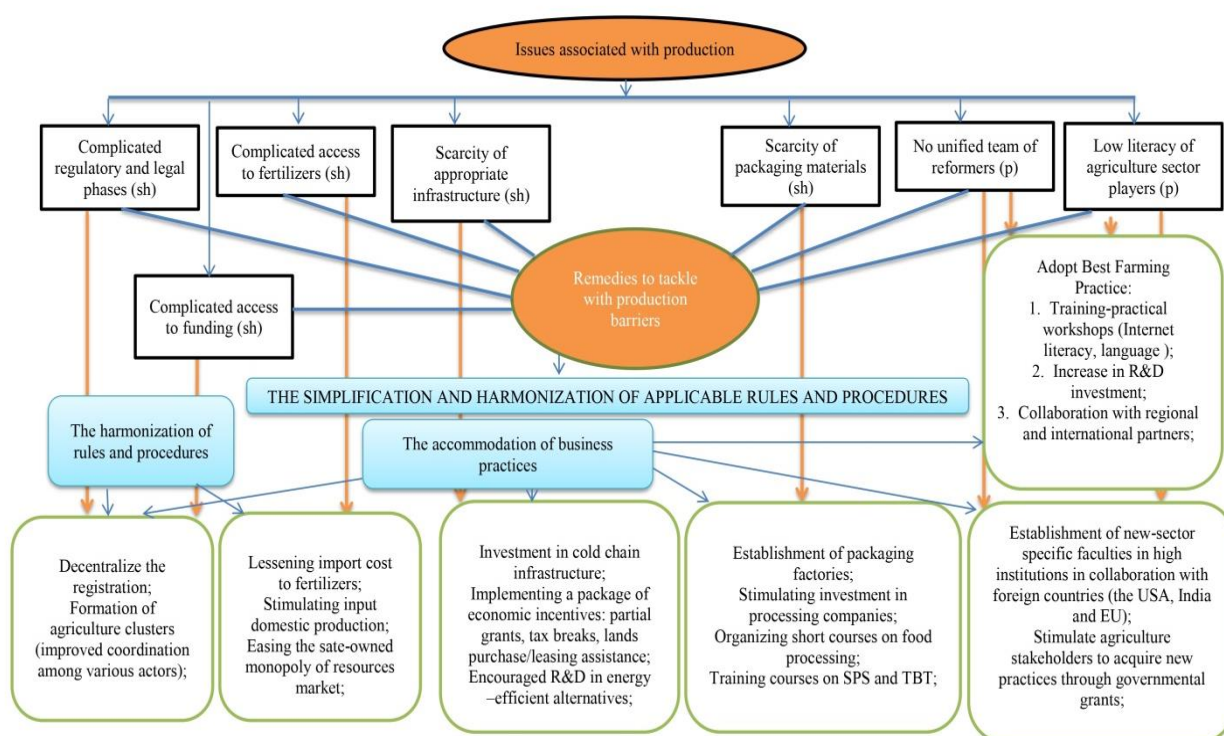
**Pic. 4. Export potential indicator**

Source: The author computation.

Positive indicators show that the country experiences the exceeding export, while the negative numbers convey that the country does not fully employ its export capacity to those countries. The results are shown in the Pic. 4.

As can be seen from the graph, Uzbekistan trades fruitfully in exceeding capacity in fruit and vegetables with Russian Federation, Kazakhstan, Kyrgyzstan, Afghanistan, China and Turkmenistan. While other countries leave with untapped export. However, to other countries like Azerbaijan, India, Tajikistan, export value shows that the county faces some barriers to trade or not fully employing its trade potential. In this case, it should be noted here that a very high positive indicators may bring the economy to straining point. Thus, based on derived results, the country should expand its exporting markets to fully benefit from its competitive advantage, not to rely on traditional markets.

**The third chapter of the dissertation** called “Directions to increase production of the fruit and vegetables sector and promotion of Uzbek fruit and vegetables to foreign markets” analyzes the current state of the fruit and vegetables sector in our country, existing problems and shortcomings and opportunities in the field. Based on the sector analysis, possible recommendations to increase the production and export of fruit and vegetable and further promotion of the sector competitiveness in the foreign markets have been developed.

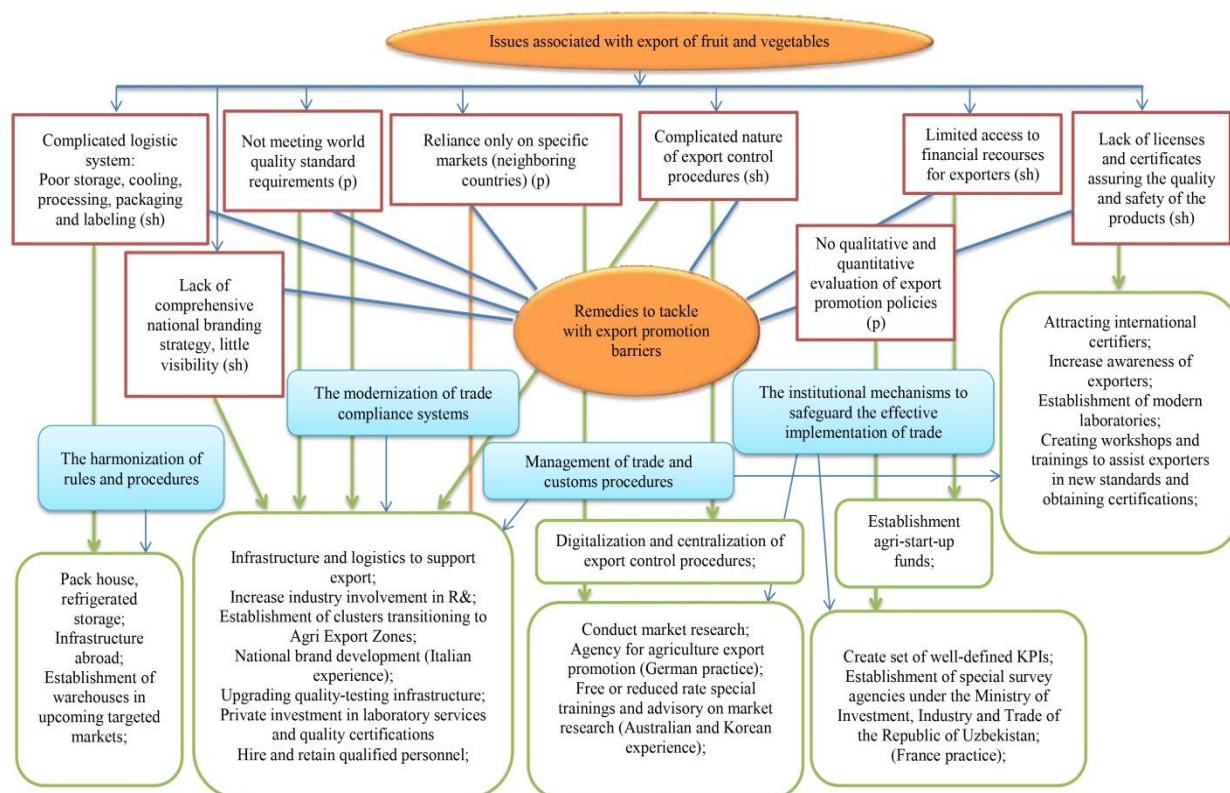


**Pic.5. Scheme of remedies to tackle with fruit and vegetables production barriers in Uzbekistan**

Source: Developed by author

Pic.5. visualizes the existing problems and shortcomings analyzing official

reports and statistics related to the production of fruit and vegetables sector of the Republic of Uzbekistan and develops possible solutions to tackle the issues relying on foreign experiences (mainly, Indian, Italian and French practices). Pic.6 summarizes the proposed remedies of tackling with trade barriers to fruit and vegetables sector in the Republic of Uzbekistan based on the comparative and analytic analysis of existing shortcoming and problems of the sector.



**Pic.6. Scheme of remedies to tackle with export promotion barriers**

Source: Developed by author

In the current complex socio-economic and environmental conditions, with the growing needs of the population, the full and effective use of our domestic potential to replace imported fruit and vegetables, diversification in product and targeted markets through analyzing potential varieties and destinations stimulates economic growth and strengthens the sector.

The products with greatest export potential from Uzbekistan to Europe are Fruit, Cotton (fabric), and Vegetables. Fruit show the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth \$484 mn<sup>22</sup>. Mainly best options for export diversification in EU and West Europe are dried Lentils, semi-milled or wholly milled rice and citrus fruit nes, fresh or dried<sup>23</sup>. The products with greatest export potential from Uzbekistan to Europe are grapes, fresh, and peaches and nectarines, fresh. Peaches and nectarines, fresh show the largest absolute difference between potential and

<sup>22</sup> ITC., (2022). Trade Map - List of importing markets for a product exported by Uzbekistan

<sup>23</sup> ibid

actual exports in value terms, leaving room to realize additional exports worth \$105 mn<sup>24</sup>. Their unique taste makes the products demanded in EU countries. However, a high entry requirement (certifications, requirements for storage, labeling, handling) leaves the commodities still potentially.

Dried fruit is an important part of Uzbekistan's agricultural sector, not only in terms of current production and export, but also in terms of potential. Export of dried fruit amounted 0.312% of total export and 8.6% of total fruit export from Uzbekistan respectively. The procedure of storage and logistic are more flexible and available condition to grow organically gives favorable opportunity to strength this sector. Thus, it is clear that dried fruit exports, and developing appropriate methods to increase them, is important for the development of the Uzbek economy.

As agriculture products are classified as very perishable, establishment of “Green Corridors” to major export destinations is one of the mechanisms to expand export. Opening “Green Corridors” enables two countries charge low rates for inspections of agricultural imports and exports. They also provide “one-stop” service to enable fast and efficient customs clearance. A common green corridor logo is posted on vehicles at both BCPs (Border crossing point).

Organic farming is currently a global trend. According to experts, the global market for organic products has grown by 15% on average over the last five years; trade turnover in 2022 is expected to be \$212 billion (20 percent of total world agricultural production)<sup>25</sup>. The traditional culture of vegetable growing and horticulture, which has evolved over the centuries, is based on biological dehkanism principles, which include the use of natural fertilizers. This enables the production of organic (environmentally friendly) fruit and vegetables with high nutritional value, distinct flavor, and consumer characteristics without the use of gene modification technologies.

In conclusion, the potential for agricultural production development in Uzbekistan is very high, both in terms of traditional crop cultivation and the use of new innovative formats and technologies. And ongoing reforms are aimed at fully developing existing potential, increasing the competitiveness of both agricultural products and the entire agro-industrial complex. To achieve high benefit from ongoing reforms and gain absolute advantage from the trade of fruit and vegetables, Uzbekistan has to improve its specialization, organize the necessary infrastructure, and improve the system of processing and sale of crops. Thus, all these require pilot engagement all stakeholder, the government, high institutions, public-private individuals, complex implementation of policies: improving knowledge of producers, procurements, enquiring up-to-date farming experience via foreign language, the digital technologies literacy, increase the certification standards and the processes of obtaining them. Additionally, lessening the barriers for production and trade, relying on the data available, it is crucial to strengthen the system of compiling the agriculture data in order to employ econometric models to get more reliant feasible outcomes and make more precise decisions and policy

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<sup>24</sup> ibid

<sup>25</sup> World Organic Agricultural Statistics, 2022

recommendations.

## Conclusion

The results of the research and the dissertation allowed us to formulate the following conclusions:

1. Recent empirical evidence suggests that theoretical developments in new trade theories, and to a lesser extent in new growth theories, are of significant practical importance for agricultural trade analysis, and that trade policy in the presence of imperfect competition is not constrained by theoretical abstraction. In the case of Uzbekistan's agricultural trade, analyzed through the gravity model, the value of bilateral trade flows is positively related to the income of the countries and negatively affected by the distance between them, which are in line with hypothesis of the basic gravity model.

2. Despite the fact that there are numerous trade determinants, such as common borders, landlocked countries, and island countries, common language, common colonizer, and common traditional roots, not all of them have a significant impact on fruit and vegetable trade of Uzbekistan. Taking these dummies in particular as controlling and effecting determinants of the trade, it could be explained that in Uzbekistan, legal framework and regulations, institutions, norms, and community commitment have a significant impact on any business sphere, including the fruit and vegetable export system.

3. As appropriate remedies for statistical and econometric shortcomings associated with data, the gravity model has been estimated using OLS, Fixed effect, Random effect, and Hausman-Taylor and PPML methods. As a result, the methodology used to assess the export potential of fruit and vegetables in Uzbekistan.

4. Based on the results derived from Hausman Taylor method, 1% increase in GDP (partner) and GDP (reporter) increases export of fruit and vegetables by 0,853 % and 2,114% respectively; while 1 percentage increase in population of respective countries increases the export by 1,318% and 3,088% correspondingly; 1 % increase in distance between partner countries decreases export by 3,853%. Elasticities of ROL increase export by 1,469% and 11, 09% respectively and if traders are from common colonizers trade between them increases by 3, 2 %.

5. Outcomes from PPML approach, 1% increase in GDP (partner) and GDP (reporter) increases export of fruit and vegetables by 0,290 \$ and 0,248\$ respectively; while 1 percentage increase in population of respective countries increases the export by 6,021\$ and decreases by 1,833\$ correspondingly; 1 % increase in distance between partner countries decreases export by 2,079\$. Elasticities of ROL increase export by 2,887\$ and 7,946\$ respectively and if traders are from common colonizers trade between them increases by 3,369 \$.

6. Taking into consideration the problems associated with the production of fruit and vegetables sector in Uzbekistan, it is recommended to accommodate business practices which include support for domestic production input, easing the

sate-owned monopoly of resources market, investment in cold chain infrastructure, encouragement of g R&D in energy-efficient alternatives, establishment of packaging factories, reduction of import tariffs on fertilizers, implementing economic incentives: partial grants, tax breaks, lands purchase/leasing assistance; attracting investment to establishment of processing companies; organizing short courses on food processing, training courses on SPS and TBT, establishment of new-sector specific academic programs in high institutions in collaboration with foreign countries (the USA, India and EU), and organizing trainings and practical workshops (Internet literacy, language skills).

**7. The modernization of trade compliance systems:** Infrastructure and logistics to support export, establishment of clusters transitioning to Agri Export Zones, national brand development (Italian experience), upgrading quality-testing infrastructure, private investment in laboratory services and quality certifications, hire and retain qualified personnel ensure increase and support trade competitiveness.

**Management of trade and customs procedures:**To strengthen trade management digitalization and centralization (to gather all export-engaged stakeholders to one point) of export control procedures, attracting international certifiers, by increasing awareness of exporters, introducing modern laboratories with expertise, creating workshops and trainings to assist exporters in new standards and obtaining certifications could be remedies of the issue. Creating well-defined KPIs of the stakeholders, establishing special survey agencies to monitor the implementation processes of the policies ensuring the market research, as well as special agencies for agriculture export promotion ensure the effectiveness of policies, thus increase competitiveness.

**8. Diversification to expand product range and targeted markets:** agricultural product Database Development and Data Exchange, Quarantine Agencies Capacity Building and Training Programs, engaging sanitary and phytosanitary (SPS) facilities, supporting and developing organic farming, establishment green corridors, upgrading information exchange, putting into practice paperless trade, improving export promotion capacities: sector-specific expertise, better certification procedures, developing organic farming, establishing skill development, improved marketing and promotion, maintaining stable fiscal and monetary policy, stable investment regimes, and sound financial systems, establishing effective monitoring and evaluation mechanisms at the national level are recommended.

As a result of the implementation of research results, product diversification and geography of fruit and vegetable exports of the Republic of Uzbekistan will expand, the country's share in world trade will increase, additional jobs will be created, and rural infrastructure will be improved, resulting in an increase in the living standard of the population.

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**KARIMOVA XULKAR RAXMANALI QIZI**

**O‘ZBEKISTONDA MEVA-SABZAVOT YETISHTIRISH VA EKSPORT**  
**QILISHNI JAHON BOZORI TALABLARIGA MOS RAVISHDA**  
**TAKOMILLASHTIRISH MEXANIZMLARI**

**08.00.09 – Jahon iqtisodiyoti**

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**dissertatsiyasi**  
**AVTOREFERATI**

**Toshkent – 2023**

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iqtisodiyot fanlari nomzadi, dotsent

**Rasmiy opponentlar:** **Pierre Borgoltz**  
iqtisodiyot fanlari doktori, professor

**Yunusov Nosirjon Sobirovich**  
iqtisodiyot fanlari doktori

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(2023-yil «\_\_» \_\_\_\_\_ dagi \_\_\_ raqamli reyestr bayonnomasi)

**I.R.Mavlanov**

Ilmiy darajalar beruvchi ilmiy kengash raisi, iqtisodiyot fanlari doktori, professor

**L.M.Tashpulatova**

Ilmiy darajalar beruvchi ilmiy kengash ilmiy kotibi, iqtisodiyot fanlari nomzodi, dotsent

**N.Sirojiddinov**

Ilmiy darajalar beruvchi ilmiy kengash qoshidagi ilmiy seminar raisi, iqtisodiyot fanlari doktori, professor

## **KIRISH (falsafa doktori (PhD) dissertatsiyasi annotatsiyasi)**

### **Tadqiqot mavzusining dolzarbligi va zarurati.**

Qishloq xo'jaligi O'zbekiston ishchi kuchining chorak qismidan ko'pini ish bilan ta'minlagan holda YaIMning 25 foizini tashkil etib, O'zbekiston iqtisodiyotida muhim o'rin tutadi. O'zbekiston o'z navbatida nafaqat o'z aholisining ehtiyojlarini qondiradi, balki qishloq xo'jaligi mahsulotlarini eksport qilish bilan ham shug'ullanadi va bu sohada katta imkoniyatlarga ega.

O'zbekiston hukumati ushbu tarmoqni rivojlantirish bo'yicha faol ish olib borib, bir qator islohotlarni amalga oshirmoqda. O'zbekiston Respublikasining qishloq xo'jaligi va oziq-ovqat tarmog'ini barqaror rivojlantirish davlat siyosatini yangicha yondashuvlarga asoslangan holda amalga oshirishni taqozo etmoqda. 2017-2021-yillarda O'zbekistonni rivojlantirishning beshta ustuvor yo'nalishi bo'yicha O'zbekiston Respublikasi Prezidentining 2017 yil 7 fevraldagi PF-4947-sonli "O'zbekiston Respublikasini yanada rivojlantirish bo'yicha Harakatlar strategiyasi to'g'risida"gi Farmoni, O'zbekiston Respublikasi Prezidentining 2019 yil 23-noyabrdagi PF-5853-sonli "O'zbekiston respublikasi qishloq xo'jaligini rivojlantirishning 2020-2030-yillarga mo'ljallangan strategiyasini tasdiqlash to'g'risida"gi Farmoni, O'zbekiston Respublikasi Prezidentining 28-yanvar 2022-yildagi PF-60-sonli "2022-2026-yillarda Yangi O'zbekistonni rivojlantirish strategiyasi to'g'risida"gi Farmoni, O'zbekiston Respublikasi Prezidentining 14-mart 2019 yildagi PQ-4239-sonli "Meva-sabzavotchilik sohasida qishloq xo'jaligi kooperatsiyasini rivojlantirish chora-tadbirlari to'g'risida"gi qarori, O'zbekiston Respublikasi Prezidentining 11-dekabr 2019 yildagi PQ-4549-sonli "Meva-sabzavotchilik va uzumchilik tarmog'ini yanada rivojlantirish, sohada qo'shilgan qiymat zanjirini yaratishga doir qo'shimcha chora-tadbirlar to'g'risida"gi qarorlari ushbu tarmoq oldidagi vazifalarni hal qiluvchi asosiy qonun hujjatlari hisoblanadi.

Mazkur hujjatlar qishloq xo'jaligi va oziq-ovqat sanoatining raqobatbardoshligini oshirishga qaratilgan islohotlarni chuqurlashtirish bilan birga davlat siyosatini tubdan takomillashtirishdan iborat bo'lib, ular qishloq xo'jaligiga oid quyidagi asosiy ustuvor yo'nalishlarni qamrab oladi:

Eksport faoliyatini erkinlashtirish va qulaylashtirish, eksport tuzilmasi va geografiyasini diversifikatsiya qilish, iqtisodiyot tarmoqlari va hududlari eksport salohiyatini kengaytirish;

Sanoatni boshqarishda davlat ishtirokini qisqartirish va investitsion jozibadorligini oshirish;

Qishloq xo'jaligi fanlari, ta'lim, axborot va konsalting xizmatlari tizimini rivojlantirish;

Sohani qo'llab-quvvatlashga qaratilgan davlat xarajatlarini bosqichma-bosqich diversifikatsiya qilish;

Tarmoq statistikasining shaffof tizimini rivojlantirish;

Meva yetishtiruvchi hududlarda faoliyat yuritayotgan fermer va dehqon xo'jaliklari negizida ixtisoslashtirilgan kooperativlar tashkil etilishini ta'minlash va uning samaradorligini oshirish;

Meva-sabzavot mahsulotlarini yetishtirish, saqlash, qayta ishlash va sotishda ilg'or texnologiyalarni joriy etish hamda kooperativlarni rivojlantirishni rag'batlantirish va ushbu mahsulotlarni ishlab chiqaruvchilarning samaradorligini oshirish;

Rivojlanayotgan mamlakatlarda, xususan, eksportning salmoqli qismini qishloq xo'jaligi mahsulotlari tashkil etuvchi O'zbekistonda xalqaro qishloq xo'jaligi savdosi iqtisodiy o'sishning muhim omili hisoblanadi. Shu sababli, O'zbekiston hukumati meva-sabzavotchilik sanoatini rivojlantirish va isloh qilishga katta e'tibor qaratmoqda. Biroq, mavjud potentsialning to'liq hajmi hali aniqlanmagan. O'zbekiston 2022-yilda 903,3 million dollarlik 1,4 million tonna ya'ni o'tgan yilning shu davriga nisbatan 192 ming tonnaga ko'p meva-sabzavot eksport qilgan bo'lsa-da, O'zbekiston eksportidagi meva-sabzavot eksporti ulushi o'zgarmas ko'rsatkichni saqlab kelmoqda (taxminan 7%<sup>1</sup>). Fermerlarda meva-sabzavot ekinlarini zamonaviy texnologiyalar yordamida yetishtirish, saqlash va eksport qilish bo'yicha eng so'nggi bilim va tajriba yetarli emas.

Shuningdek, qishloq xo'jaligida bozor islohotlarini jadallashtirish orqali qishloq xo'jaligi mahsulotlari mahsuldorligini oshirgan holda O'zbekistonda BMT Barqaror Rivojlanish Maqsadlarining sakkizinchi ("Munosib ish o'rinlari va iqtisodiy o'sish") va birinchi ("O'ta qashshoqlikka barham berish") maqsadlariga erishish mumkin. O'z navbatida, savdoni osonlashtirishda eksport va import jarayonlarini soddalashtirish, modernizatsiya qilish va uyg'unlashtirish jahon savdo tizimi uchun muhim masala hisoblanadi. O'zbekiston kabi qulay iqlimi, an'anaviy yetishtirish usullari va ishlab chiqarish tannarxidan foyda keltiradigan mamlakat uchun qishloq xo'jaligida savdoni osonlashtirishning potentsial foydasi kattadir. Bir vaqtning o'zida savdoni yengillashtirishni kuchaytirish va Barqaror Rivojlanish Maqsadlariga erishish orqali O'zbekiston meva-sabzavot eksportidan foyda ko'rishi, sektorning raqobatbardoshligini oshirishi va umumiy farovonlikka erishishi mumkin.

Yuqorida ta'kidlanganidek, meva va sabzavotlarga jahon talabi ortib borayotgan holatda, O'zbekistonda meva-sabzavot eksportining holati bilan bog'liq muammolarni hal qilish juda muhim hisoblanadi. Umumiy eksport sektori bo'yicha ko'plab empirik tadqiqotlar o'tkazilgan bo'lsa-da, O'zbekistonda meva-sabzavot eksporti subsektorining o'zgaruvchanligi va diversifikatsiyasiga oid asosiy masalalar hujjatlashtirilmagan. Shu sababli O'zbekistonda meva-sabzavot eksportini diversifikatsiya qilishning asosiy masalalarini aniqlash uchun birinchi navbatda meva-sabzavot eksportining o'sish qonuniyatlarini, mahsulotlar va bozorlarning eksport konsentratsiyasini aniqlash zarur.

O'zbekistonda meva-sabzavot savdosining hozirgi tendensiyalari va mavzu bo'yicha adabiyotlarning kamligini hisobga olgan holda, ushbu tadqiqotning umumiy maqsadi O'zbekistonning xalqaro bozordagi 2017-2020 yillar uchun meva-sabzavot mahsulotlari eksporti ko'rsatkichlarini tahlil qilish va meva-sabzavot mahsulotlari tarkibini shakllantirgan muhim omillarni aniqlashdan iborat. Bundan tashqari, ushbu ishning asosiy ahamiyati eksport tadqiqotlarida

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<sup>1</sup> O'zbekiston Respublikasi statistika qo'mitasi

gravitatsiya modelidan foydalanishning nazariy asoslarini tasdiqlashdan iborat.

**Mavzuning respublika fan va texnologiyalari rivojlanishining ustuvor yo‘nalishlariga bog‘liqligi.** Mazkur tadqiqot O‘zbekiston Respublikasi fan va texnologiyalar rivojlanishining “Demokratik va huquqiy jamiyatni ma’naviy-ahloqiy va madaniy rivojlantirish, innovatsion iqtisodiyotni shakllantirish” nomli birinchi ustuvor yo‘nalishiga muvofiq bajarilgan.

### **Muammoning o‘rganilganlik darajasi.**

Mamlakatimiz tadqiqotchilaridan S.Topildiyev<sup>2</sup> tomonidan O‘zbekistonda meva-sabzavot yetishtirish va eksport salohiyatining ilmiy-amaliy jihatlari o‘rganish davomida O‘zbekiston Respublikasida agrar munosabatlar rivojlanishining tarixiy bosqichlari tahlil qilinib, qishloq xo‘jaligini modernizatsiya qilish, takomillashtirishning huquqiy asoslari va shu kabi masalalarga alohida to‘xtalib o‘tilgan. O‘rta muddatli istiqbolda qishloq xo‘jaligi samaradorligini oshirishga qaratilgan ilmiy va amaliy tavsiyalar ishlab chiqilgan. Shuningdek, 2017-2021-yillarda O‘zbekiston Respublikasini rivojlantirishning beshta ustuvor yo‘nalishi bo‘yicha “Harakatlar strategiyasi”da belgilangan asosiy maqsadlarni amalga oshirish yo‘llari o‘rganilgan. F.Nazarova, R.Toshmatov, B.Zaripov, M.Rahmatov, X.Urdushev, A.Qulmatov, Sh.Kimsanboeva, B.Sindarov, A.Ergashev<sup>3</sup>, B.Usmonov, F.Raximov, T.Yusupov, O. Bafoyev, Ch.Murodov, Sh.Hasanov, I.G‘aniyev va M.Muradovlar<sup>4</sup> meva-sabzavotchilik tarmog‘ida klaster tizimi asosida ishlab chiqarishni tashkil etish samaradorligining nazariy jihatlari va amaliy ahamiyatini o‘rgandilar. N.Yo‘ldoshev, V.Nabokov, K.Nekrasov, B.Tursunovlar O‘zbekiston agrosanoat majmuasini innovatsion rivojlantirish yo‘nalishlari, modernizatsiya va raqamlashtirish sharoitida eksport salohiyatini boshqarish masalalarini o‘rgandi. A.Ergashev<sup>5</sup> meva-sabzavot yetishtirish va ulardan foydalanish imkoniyatini yaxshilash uchun mavjud cheklovlar va imkoniyatlarni sog‘lom ovqatlanishning asosiy hal qiluvchi omili sifatida o‘rgandi. Xorijlik tadqiqotchilardan Donald F.Larson<sup>6</sup> bog‘dorchilik sohasini tahlil qilib, xarajat va marja yondashuvidan kelib chiqqan holda amaliy tavsiyalar ishlab chiqqan. A.Do‘rmonov, A.Tillayev, S.Ismoilova, X.Djamilova va Sh.Murodov<sup>7</sup> qishloq xo‘jaligi ishlab chiqarishini optimallashtirish modelini taklif qildi, bu esa korxonalariga bir qator cheklovlar asosida ishlab chiqarish

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<sup>2</sup> Topildiyev Sohibjon. ( 2011).- *Historical Perspectives of Development of Agrarian Relations in Uzbekistan* / Auto report Tashkent

<sup>3</sup> Alisher Ergashev, (2014). *Why Fruit and Vegetable Production is Not Fruitful for Uzbek Farmers*, IAMO, Zentrum für Entwicklungsforschung (ZEFb), University of Bonn, Germany.

<sup>4</sup> Ch.Murodov, Sh.Hasanov, I.G‘aniyev, M.Murodova, (2014). *Directions for using the experience of South Korea in the organization of agro-clusters*. Collection of abstracts of the Republican scientific-practical conference "Improving the competitiveness and export potential of the agro-industrial complex of Uzbekistan." TSUE,167-173p.

<sup>5</sup> Alisher Ergashev, (2014). *Why Fruit and Vegetable Production is Not Fruitful for Uzbek Farmers*, IAMO, Zentrum für Entwicklungsforschung (ZEFb), University of Bonn, Germany.

<sup>6</sup> Donald F. Larson, .(2012). *Uzbekistan Strengthening the Horticulture Value Chain*, World Bank.

<sup>7</sup> Urmanov Akmal Shaimardanovich; Tillayev Alisher Xasanovich; Ismayilova Suluxan Sarsenbayevna; Djamilova Xulkar Sayorovna and Murodov Sherzodbek Murod ogli.(2019). *Economic-mathematical modeling of optimal level costs in the greenhouse vegetables in Uzbekistan* , Vol. 40 (Number 10). 20-p.

rentabelligini oshirish imkonini beradi. Y.Chazova<sup>8</sup> issiqxonalarda sabzavot yetishtirishga bo‘lgan iste‘mol talabini o‘rgangan. Muallifning topilmalari issiqxona sabzavot ekinlarini matematik modellashtirishda juda muhimdir. N.Medvedeva<sup>9</sup> umumiy qishloq xo‘jaligi mahsulotlarida sikllar va inqirozlarni bashorat qilishni tadqiq qilgan. Muallif qishloq xo‘jaligi mahsulotlari uchun umumlashtirilgan prognozlash modelini yaratgan. S.Umarov<sup>10</sup> O‘zbekistonning Toshkent viloyati issiqxonalarida sug‘orishning innovatsion muammolariga to‘xtalib o‘tgan.

Asosan, ilgari olib borilgan tadqiqotlar, butun qishloq xo‘jaligi sohasini tahlil qilishga qaratilgan bo‘lib, meva-sabzavot savdosi va uning salohiyatini belgilovchi omillarni baholovchi qat‘iy ekonometrik modellashtirish shakllantirilmagan. Shu bois meva-sabzavotchilik tarmog‘ini yanada rivojlantirish bo‘yicha ilmiy tadqiqotlar olib borish, savdoning asosiy omillari va salohiyatini aniqlash muhim ahamiyatga ega.

**Dissertatsiya mavzusining dissertatsiya bajarilgan oliy ta‘lim muassasasining ilmiy tadqiqot ishlari rejalari bilan bog‘liqligi.** Dissertatsiya tadqiqoti Jahon iqtisodiyoti va diplomatiya universitetining “Jahon iqtisodiyotiga integratsiyalashuv sharoitida milliy iqtisodiyotni innovatsion rivojlantirish masalalari” mavzusidagi ilmiy-tadqiqot ishlariga muvofiq bajarilgan.

**Tadqiqotning maqsadi** O‘zbekistonda meva-sabzavot yetishtirish va eksport qilishni jahon bozori talablariga mos ravishda takomillashtirish mexanizmlari bo‘yicha takliflarni ishlab chiqishdan iborat.

**Tadqiqotning vazifalari:**

1. Savdo nazariyalarini tahlil qilish va ularni qishloq xo‘jaligi sektori bilan bog‘lash;
2. Gravitatsiya nazariyasini qishloq xo‘jaligi savdosini baholash uchun optimal vosita sifatida ko‘rib chiqish;
3. Jahon qishloq xo‘jaligi savdosini va minimal sifat standartlarini tahlil qilish;
4. Meva-sabzavot sektori huquqiy asoslari, rivojlanishi va eksportini tahlil qilish;
5. Meva-sabzavot mahsulotlari eksporti va bozorlari bo‘yicha o‘sish sur‘ati va o‘zgaruvchanligi baholash;
6. O‘zbekiston Respublikasida meva-sabzavot mahsulotlarining eksport determinantlarini Gravitatsion model yondashuvi bilan baholash va eksport salohiyatini hisoblash (bozor diversifikatsiyasi nuqtai nazaridan);

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<sup>8</sup> Chazova, I.Yu. (2009). Forecasting consumer demand for vegetable products of closed ground. *AIC: Economy, Management*, 4, 52-57-p.

<sup>9</sup> Medvedeva, N.A. (2015). Forecasting of cycles and crises in agriculture. *Bulletin of the Agrarian and Industrial Complex of Stavropol Territory*, 3 (19), 208-211-p.

<sup>10</sup> Umarov S.R. (2017). Innovative development and main directions of water management. *Scientific Electronic Journal “Economics and Innovative Technologies”*, 1, January February [http://www.iqtisodiyot.uz/sites/default/files/maqolalar/6\\_S\\_Umarov.pdf](http://www.iqtisodiyot.uz/sites/default/files/maqolalar/6_S_Umarov.pdf)

7. O‘zbekistonda meva va sabzavot yetishtirishdagi muammo va kamchiliklarni tasniflash va ularni bartaraf etish choralarning tizimli sxemasini yaratish;

8. O‘zbekistonda meva-sabzavot mahsulotlarini diversifikatsiya qilishning asosiy masalalarini aniqlash va O‘zbekiston meva-sabzavot mahsulotlarini tashqi bozorlarga olib chiqish mexanizmlarini takomillashtirish

9. O‘zbekistonda meva-sabzavot mahsulotlarini yetishtirish va eksport qilishni kengaytirish bo‘yicha tavsiyalar va istiqboldagi yo‘nalishlarni ishlab chiqish.

**Tadqiqot obyekti** sifatida O‘zbekiston meva-sabzavotlar yetishtirish sektori belgilab olingan.

**Tadqiqotning predmetini** sifatida O‘zbekistonda meva-sabzavot mahsulotlarini yetishtirish va eksport qilishni rivojlantirish mexanizmi tanlangan.

**Tadqiqotning usullari.** Dissertatsiya tadqiqoti jarayonida qiyosiy, miqdoriy, strukturaviy tahlil va sintez, ekonometrik modellashtirish usullari qo‘llaniladi. Qiyosiy tahlil asosida asosiy statistik ma‘lumotlar tahlil qilinadi. Ishlab chiqilgan modellar O‘zbekiston Respublikasi Davlat statistika qo‘mitasi, Jahon taraqqiyoti ko‘rsatkichlari ma‘lumotlar bazasi, Xalqaro savdo markazining Savdo xaritasi ma‘lumotlar bazasi va Xalqaro istiqbollar va axborotlashtirish markazi (CEPII, 2020) ma‘lumotlari asosida tuzilgan. Savdoning an‘anaviy gravitatsiya modelidan Stata dasturi yordamida foydalanilgan.

**Tadqiqotning ilmiy yangiligi** quyidagilardan iborat:

Qishloq xo‘jaligida gravitatsiya nazariyasining tizimli sxemasi qishloq xo‘jaligida savdo nazariyasi bo‘yicha klassik va zamonaviy ilmiy adabiyotlarni tizimlashtirish ma‘lumotlari, usullari va natijalari asosida ishlab chiqilgan;

Pooled OLS, Fixed-effects, Random-effects, Hausman-Taylor va PPML usullaridan foydalangan holda an‘anaviy gravitatsiya modeli asosida meva va sabzavotlar eksporti determinantlarining elastiklik koeffitsientlari hisoblangan; O‘zbekiston meva-sabzavotchilik tarmog‘ining eksport salohiyati hisoblab chiqilgan;

O‘zbekiston Respublikasi meva va sabzavot sektorida yetishtirish va eksport qilishdagi asosiy muammo va kamchiliklarni bartaraf etish bo‘yicha kompleks tizimli chora-tadbirlar ishlab chiqilgan;

Xorijiy tajribaga asoslangan holda O‘zbekistonda meva va sabzavot yetishtirish va eksport qilishni yanada kengaytirish bo‘yicha tavsiyalar ishlab chiqilgan.

**Tadqiqotning amaliy natijalari** quyidagilardan iboratdir:

O‘rganish natijalari qishloq xo‘jaligi sektorini, asosan, meva-sabzavot kichik sektorini takomillashtirish va tartibga solish bo‘yicha siyosiy tavsiyalarni ishlab chiqishda qo‘llanilishi mumkin. Bundan tashqari, meva va sabzavot yetishtirish va eksport qilish sohasi bilan bevosita va bilvosita bog‘liq bo‘lgan bank, marketing, qayta ishlash va logistika sohalarida qo‘llanilishi mumkin. Shuningdek, natijalardan O‘zbekiston Respublikasi Qishloq xo‘jaligi va Investitsiyalar, sanoat va savdo vazirligi, O‘zbekiston Respublikasi Investitsiyalar, sanoat va savdo

vazirligi huzuridagi Eksportni rag‘batlantirish agentligi, hokimliklarning qishloq xo‘jaligi boshqarmalari foydalanishi mumkin.

**Tadqiqot natijalarining ishonchligi** rasmiy manbalardan foydalanilganligi, xususan, O‘zbekiston Respublikasi Prezidenti huzuridagi statistika agentligi, Jahon banki ma‘lumotlar bazasi (World bank), Xalqaro savdo markazining Savdo geografiyasi ma‘lumotlar bazasi (ITC, Trade Map), Istiqbolli tadqiqotlar va xalqaro axborot markazi (Centre d’Études Prospectives et d’Informations Internationales CEPII, 2020) ma‘lumotlari, FAO, OECD kabi xalqaro tashkilotlar hisobotlariga asoslanganligi bilan izohlanadi. Tadqiqot natijalarining asosligi zamonaviy ekonometrik tadqiqot usullaridan hamda xalqaro tashkilotlar tomonidan tasdiqlangan usullardan foydalanishga, shuningdek, ishlab chiqilgan taklif va tavsiyalarining ishonchligiga, meva va sabzavot yetishtirish va eksportini rivojlantirish bo‘yicha qabul qilingan me‘yoriy hujjatlarning qo‘llanilishiga asoslanadi.

**Tadqiqot natijalarining ilmiy va amaliy ahamiyati** maqsadlarning dolzarbligi va uning amaliy muammolarni hal qilishga qaratilganligi bilan belgilanadi. Ishning ilmiy-amaliy ahamiyati shundan iboratki, uslubiy yondashuvlar va taklif etilayotgan konsepsiyalardan meva-sabzavotchilik tarmog‘ini rivojlantirishda, aniqrog‘i, eksport va ishlab chiqarish hajmini oshirishning iqtisodiy mexanizmini takomillashtirishda foydalanish mumkin. Tadqiqot muallifi tomonidan ishlab chiqilgan uslubiy pozitsiyalar muayyan sektorni rivojlantirish uchun ta‘sir qiluvchi asosiy omillar va mexanizmlarni aniqlashga asoslangan holda eksport strategiyasini takomillashtirishga imkoniyat yaratadi. Tarmoqning eksport salohiyatini baholashga taklif etilayotgan yondashuv meva-sabzavot mahsulotlari eksportining asosiy hal qiluvchi omillarini nazorat qilish va eksport yo‘nalishlarini diversifikatsiya qilish strategiyasini shakllantirishga yo‘naltirilgan. Tadqiqot ishining yakunida ushbu tarmoqning raqobatbardoshligini oshirishga olib keladigan meva-sabzavot mahsulotlari yetishtirish va eksportini rivojlantirish bo‘yicha tavsiyalar ishlab chiqilgan.

#### **Tadqiqot natijalarining joriy qilinishi.**

O‘rganish natijalari va muallif tomonidan taqdim etilgan tavsiyalardan O‘zbekiston Respublikasi Investitsiyalar, sanoat va savdo vazirligi, O‘zbekiston Respublikasi Investitsiyalar, sanoat va savdo vazirligi huzuridagi Eksportni rag‘batlantirish agentligi, shuningdek, boshqa manfaatdor tomonlar, shu jumladan, Jahon savdo instituti (WTI) kabi xorijiy tashkilotlar meva-sabzavot mahsulotlarini yetishtirish va eksportini kengaytirishga qaratilgan islohotlar chora-tadbirlarini ishlab chiqishda foydalanildi. Tadqiqot natijalaridan O‘zbekistonning JSTga a‘zo bo‘lish jarayonida ham foydalanish mumkin.

O‘rganish davomida ishlab chiqilgan tavsiyalar O‘zbekiston Respublikasi Investitsiyalar, sanoat va savdo vazirligi huzuridagi Eksportni qo‘llab-quvvatlash agentligi tomonidan davlat normativ-huquqiy hujjatlar: O‘zbekiston Respublikasi Prezidentining 20.11.2019 yildagi PQ-4525-sonli “Mamlakatda biznes muhitini yanada yaxshilash va tadbirkorlikni qo‘llab-quvvatlash tizimini takomillashtirish chora-tadbirlari to‘g‘risida”, O‘zbekiston Respublikasi Prezidentining 24.05.2019 yildagi PQ-4337-sonli “Eksport faoliyatini moliyalashtirish va sug‘urta himoyasi

mexanizmlarini kengaytirish chora-tadbirlari to'g'risida", O'zbekiston Respublikasi Prezidentining 20.12.2018 yildagi PQ-4069-son "Eksportga ko'maklashish va uni rag'batlantirishni kuchaytirish chora-tadbirlari to'g'risida", O'zbekiston Respublikasi Prezidentining 14.03.2019 yildagi PQ-4239-sonli "Meva-sabzavotchilik sohasida qishloq xo'jaligi kooperatsiyasini rivojlantirish chora-tadbirlari to'g'risida", O'zbekiston Respublikasi Prezidentining 14.01.2021 yildagi PQ-4949-sonli "2021-yilda O'zbekiston respublikasining eksport salohiyatini amalga oshirish chora-tadbirlari to'g'risida", O'zbekiston Respublikasi Vazirlar Mahkamasining, 31.12.2020 yildagi 826-sonli "O'zbekiston respublikasi investitsiyalar va tashqi savdo vazirligi huzuridagi eksportni rag'batlantirish agentligi tomonidan eksport qiluvchi tashkilotlarga moliyaviy yordam ko'rsatish tartibi to'g'risidagi nizomni tasdiqlash haqida", O'zbekiston Respublikasi Vazirlar Mahkamasining 04.10.2021 yildagi 618-sonli "Mahsulotlarni eksport qilishda tashish xarajatlarining bir qismini kompensatsiya qilish tartibi to'g'risidagi nizomni tasdiqlash haqida" qarorlarining quyidagi:

Tadbirkorlik sub'ektlarining tashqi iqtisodiy faoliyat sohasidagi bilim va savodxonligini oshirish;

Eksportga mo'ljallangan mahsulotlar ishlab chiqarish, jumladan, meva-sabzavotlarni yig'ish, qayta ishlash va saqlashga ilmiy yondashuvni joriy etish;

Sertifikatlashtirish va standartlashtirishga ko'maklashish orqali ishlab chiqarish tizimini yangilash, shuningdek, mamlakatda sertifikatlashtirish tizimlarini joriy etish;

O'zbek brendlarning xorijda xabardorligini oshirish kabi maqsadlarini samarali ijrosini ta'minlash maqsadida foydalanish uchun joriy etildi.

Bundan tashqari, takliflar "O'zbekistonda ishlab chiqarilgan" brendini ilgari surish bo'yicha "Made in Uzbekistan", "O'zbekiston milliy elektron tijorat tizimi" ("NETP") kabi loyihalarni amalga oshirishda, o'zbek brendlari va tovarlarini tashqi bozorlarda ommalashtirishda foydalanilmoqda (2022 yil 8 noyabrdagi 05-12-2/12-69 va 2022 yil 6 dekabrdagi 39-03/08/-1/4596 raqamli dalolatnomalari).

O'zbekiston Respublikasi Investitsiyalar, sanoat va savdo vazirligi huzuridagi Eksportni qo'llab-quvvatlash agentligi tomonidan O'zbekiston Respublikasi eksportni rivojlantirish davlat dasturlarini ishlab chiqish jarayonida eksport faoliyatini qo'llab-quvvatlash va qulaylashtirishning yangi yondashuv va mexanizmlarini joriy etishda dissertatsiya ishi natijalaridan foydalanildi.

Taklif etilgan tavsiyalar Jahon savdo instituti xalqaro ekspertlari va Jahon savdo tashkiloti mutaxassislari ishtirokida o'tkazilgan "O'zbekistonning JSTga a'zoligi: muammolar va imkoniyatlar (O'zbekiston agrosanoati misolida)" amaliy tadqiqoti jarayonida foydalanildi.

**Tadqiqot natijalarining aprobatsiyasi.** Mazkur tadqiqot natijalari 15 ta, shu jumladan 9 ta xalqaro va 6 ta respublika ilmiy-amaliy anjumanlarida muhokamadan o'tgan.

**Tadqiqot natijalarining e'lon qilinganligi.** Dissertatsiya mavzusi bo'yicha jami 8 ta ilmiy ish, jumladan, O'zbekiston Respublikasi OAK e'tirof etgan mahalliy jurnallarda 3 ta, nufuzli xorijiy jurnallarda 5 ta, ilmiy-amaliy anjumanlarda 7 ta ma'ruza tezislari e'lon qilingan.

**Dissertatsiyaning tuzilishi va hajmi.** Dissertatsiya tarkibi kirish, uchta bob, xulosa, foydalanilgan adabiyotlar ro'yxati va ilovalardan iborat. Dissertatsiyaning hajmi ilovani hisobga olgan holda 168 betni tashkil etadi.

## **DISSERTATSIYANING ASOSIY MAZMUNI**

Dissertatsiyasining **kirish** qismida tadqiqot mavzusining dolzarbligi asoslangan, tadqiqotning maqsadi, vazifalari, obyekti va predmeti belgilangan, tadqiqot mavzusining respublika fan va texnologiyalari rivojlanishining ustuvor yo'nalishlariga mosligi ko'rsatilgan, tadqiqotning ilmiy yangiligi va amaliy natijalari bayon qilingan. Olingan natijalarning ilmiy va amaliy ahamiyati izohlab berilgan, tadqiqot natijalarining amaliyotga joriy etilishi, nashr qilingan ishlar va dissertatsiya tuzilishi doirasidagi ma'lumotlar keltirilgan.

Dissertatsiyaning **“Jahon bozori talablari bilan bog‘liq holda meva-sabzavot yetishtirish va eksport qilishning nazariy asoslari”** nomlangan birinchi bobida qishloq xo‘jaligida xalqaro savdo nazariyalari va ularning qo‘llanilishi, Gravitatsion model orqali qishloq xo‘jaligi savdosining nazariy asosi, xalqaro standartlardagi minimal sifat ko‘rsatkichlari o‘rganilgan holda jahon meva va sabzavotlar savdo ko‘rsatkichlari tahlil qilingan.

Ko‘plab iqtisodchilar xalqaro savdo nazariyalarini o‘rganishgan. Merkantilistik nazariya, A. Smitning mutlaq afvallik nazariyasi, D.Rikardoning qiyosiy afzallik nazariyasi va D.Mill nazariyasi, Xeksher-Olin nazariyasi, Leontiev paradoksi, Samuelson va Stolper nazariyasi, Ribchinskiy teoremasi, R.Vernon nazariyasi. M.Porter va Gravitatsiya nazariyasi xalqaro savdoning asosiy nazariyalaridan hisoblanadi.

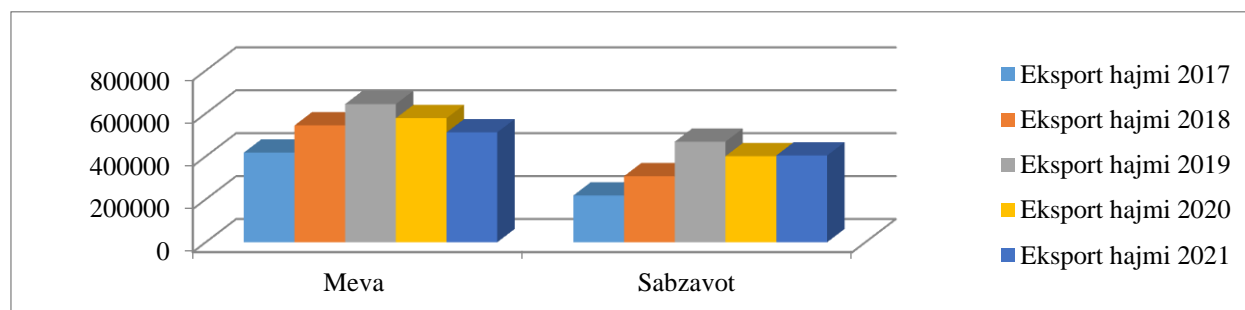
Meva-sabzavot sektoridagi savdoni tushuntirishda turli savdo nazariyalarining kamchiliklarini hisobga olgan holda, Gravitatsiya savdo nazariyasi shakllandi, bu birinchi navbatda savdo hajmi import qiluvchi mamlakatning iqtisodiy o‘lchami bilan baholanadi degan taxminga asoslanadi. Model ikki davlat o‘rtasidagi savdo oqimini ularning iqtisodiy “massasi” (milliy daromad)ga mutanosib va bir-biridan uzoqligiga teskari proporsional sifatida tavsiflaydi. Gravitatsiya modeli xalqaro savdoda transport xarajatlarining rolini hisobga olgan modellardan biridir.

Standart gravitatsiya modeliga ko‘ra, ikki tomonlama savdo oqimlarining qiymati mamlakatlar daromadlari bilan ijobiy bog‘liq va ular orasidagi masofaga salbiy ta’sir qiladi. Umumiy chegaralar, dengizga chiqish imkoni bo‘lmagan mamlakatlar va orol mamlakatlari, umumiy til, umumiy mustamlakachi mamlakatlar, umumiy an’anaviy ildizlar kabi savdoga ta’sir qiluvchi determinantlari ko‘p bo‘lishiga qaramasdan, barcha o‘zgaruvchilar ham qishloq xo‘jaligi savdosiga sezilarli darajada ta’sir qilmaydi. Ayniqsa, ushbu binomial o‘zgaruvchilarni savdoni nazorat qiluvchi va ta’sir etuvchi omillar sifatida oladigan bo‘lsak, O‘zbekistonda qonunlar, institutlar, me‘yorlarning mustahkam tizimi va jamoatchilik majburiyatlari har qanday biznes sohasiga, xususan, meva-sabzavot eksporti tizimiga katta ta’sir ko‘rsatayotgan determinantlardan biri hisoblanadi. Ma'lumotlar bazasi bilan bog‘liq bo‘lgan statistik va ekonometrik kamchiliklarni bartaraf etish uchun Gravitatsiya modeli OLS, Fixed effects, Random effects, Hauseman-Teylor va PPML usullari bilan baholanadi. Shunday sababli,

qo‘llaniladigan metodologiya O‘zbekistonda meva va sabzavotlarning eksport salohiyatini baholash uchun zarur yondashuvlardan bo‘lishi mumkin.

Dissertatsiya ishining ikkinchi bobi **“O‘zbekistonda meva-sabzavotchilik tarmog‘ining rivojlanishi tahlili va eksport qilish darajasini belgilovchi omillarni baholash”** deb nomlanib, unda O‘zbekiston Respublikasida qishloq xo‘jaligi va meva-sabzavot mahsulotlari eksportining institutsional asoslari, rivojlanish tendensiyasi, meva-sabzavotchilik tarmog‘i va ularning O‘zbekiston Respublikasiga eksportidagi o‘rni hamda O‘zbekiston Respublikasida meva-sabzavot mahsulotlarining eksportga ta‘sir etuvchi omillar va savdo salohiyati tahlil qilingan.

O‘zbekiston meva va sabzavot eksporti jahon eksportining mos ravishda 0,4 va 0,5 foizini tashkil etib, dunyoda 41 va 26 o‘rinlarni egallaydi. 1-rasm 2017-yilda meva va sabzavot eksporti mos ravishda 417236,0 ming va 217701,0 ming AQSh dollar qiymatdan 2019-yilga kelib har bir ko‘rsatkich mos ravishda 643679,0 ming va 467064,0 ming AQSh dollarga teng qiymat bilan eksportning barqaror o‘tib borishini ko‘rsatadi. 2020-yilda esa O‘zbekiston qiymati deyaarli 1 milliard AQSh dollar bo‘lgan 1,4 million tonnadan ortiq meva-sabzavot eksport qildi. Biroq bu ko‘rsatkich o‘tgan yilning shu davriga nisbatan 16,5 foizga kamaygan (global COVID-19 pandemiyasi tufayli ushbu toifadagi eksport qiymati mos ravishda 15,1 va 13 foizga kamaydi): meva va rezavorlar eksporti 402,3 ming tonna 577 825 ming AQSh dollarni, sabzavot eksporti esa 400431 ming AQSh dollarlik 768,3 ming tonnani tashkil etdi. Ushbu pasayish tendensiyasi 2021 yilda ham davom etib, meva va sabzavot eksport hajmi 511756 va 404080 ming AQSh dollarni tashkil etdi.



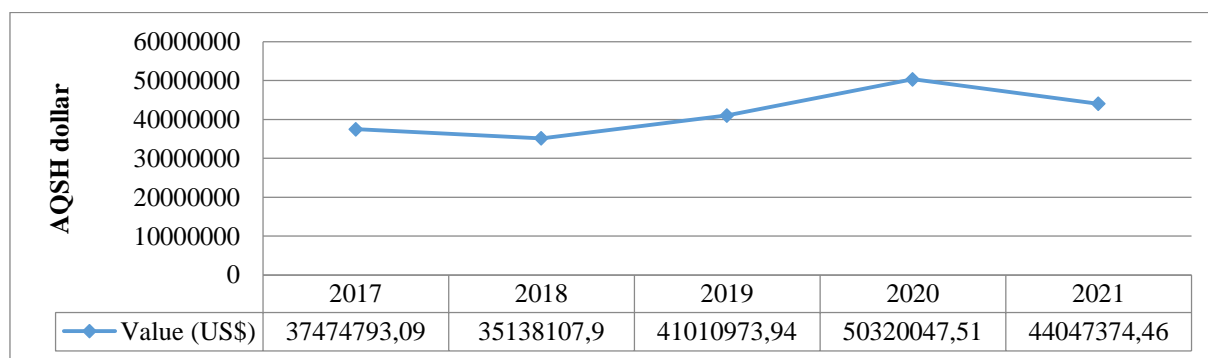
**1-rasm. O‘zbekiston Respublikasi meva-sabzavot mahsulotlari eksport hajmi**

Manba: Muallif tomonidan O‘zbekiston Respublikasi Davlat statistika qo‘mitasi ma‘lumotlariga asosan shakllantirilgan.

2017-2021-yillarda O‘zbekiston meva-sabzavot mahsulotlari eksportining asosiy iste‘molchilari Rossiya Federatsiyasi, Qozog‘iston, Qirg‘iziston, Pokiston va Xitoy bo‘lib, global pandemiya tufayli 2020-yildagi o‘zgarishlarga qaramay, ushbu davlatlarga qilingan eksport qiymati va hajmi barqaror o‘ydi.

Eksport mahsulotlarini diversifikatsiya qilish masalasiga kelsak, O‘zbekiston asosan o‘rik, uzum, qulupnay va poliz ekinlarini eksport qilmoqda, bu esa butun eksport qiymatining deyarli to‘rt dan uch qismidan ko‘prog‘ini tashkil qiladi, quruq dukkalkilar, pomidor, piyoz esa umumiy sabzavotlarning 75 foizdan ortiq hajmini

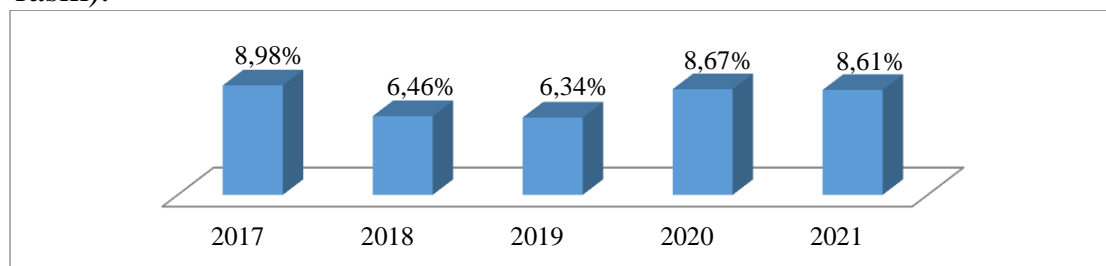
tashkil etib, 2017-2021 yillar oralig'ida mos ravishda qariyb 33 va 50 foizga o'sdi<sup>11</sup>.



### 2-rasm. Quritilgan mevalarning eksport qiymati (AQSH dollari)

Manba: Trend Economy statistikasi asosida muallif tomonidan hisoblangan.

2021-yilda O'zbekistondan quritilgan meva eksporti qiymati 44 million AQSH dollarni tashkil etib, 2020-yilga nisbatan qiymat jihatidan 12,4 foizga kamaygan. Shuningdek, quritilgan meva eksporti O'zbekiston umumiy eksportining 0,312 foizini va meva eksportining 8,6 foizini tashkil etgan. (2-rasm va 3-rasm).



### 3-rasm. Quritilgan mevalarning umumiy meva eksportidagi ulushi

Manba: Trend Economy statistikasi asosida muallif tomonidan hisoblangan.

O'zbekistondan quritilgan mevalarning asosiy eksport yo'nalishlari MDH davlatlari: Rossiya Federatsiyasi, Qozog'iston, Turkiya, Ukraina va Belarus bo'lib, 2021-yilda ushbu davlatlar hisyasi quritilgan meva eksportining to'rt dan uch qismidan ko'prog'ini tashkil etadi. Quritilgan mevalarning eksport tarkibiga kelsak, quritilgan o'rik, yong'oq aralashmasi, olma, o'rik va quritilgan shaftoli, nok, papaya asosiy eksport qilinadigan quritilgan mevalar hisoblanib, 2021-yilda ushbu quritilgan mevalarning uchdan bir qismidan ko'prog'i eksportga yo'naltirilgan.

2017-2020-yillarda O'zbekiston meva-sabzavot eksporti O'zbekiston umumiy eksportining o'rtacha 7,3 foizini tashkil etganini ko'rsatadi. Bu ulush o'rganilayotgan davr mobaynida biroz o'zgarib, 2017-yildagi minimal 6,29 foizdan 2018-yildan buyon har yili o'rtacha 7,67 foiz o'sdi.

**O'zbekiston Respublikasida meva-sabzavot mahsulotlarini eksportiga ta'sir etuvchi omillar.** An'anaviy gravitatsiya modeli ikki tomonlama savdo oqimlarining qiymati mamlakatlarning daromadlari bilan ijobiy bog'liqligini va

<sup>11</sup> O'zbekiston Respublikasi Davlat statistika qo'mitasi

ular orasidagi masofaga salbiy ta'sir ko'rsatishini bildiradi. Odatda masofadan tashqari, standart gravitatsiya modelida savdo xarajatlarining ta'sirini baholash uchun bir qator boshqa o'zgaruvchilar qo'llaniladi. Bularga umumiy chegaralar, dengizga chiqish imkoni bo'lgan va bo'lmagan mamlakatlar hamda orol mamlakatlari kiradi va bu omillar ikki tomonlama savdoda transport xarajatlarining rolini anglatadi. Gravitatsiya modeli tenglamasida asosan umumiy til, qo'shnilik va mustamlakachilik tarixi kabi omillar savdoning axborot xarajatlarini baholashda ishlatiladi (Bacchetta va boshq., 2012). Odatda, mintaqaviy savdo kelishuvlari va Jahon savdo tashkilotiga a'zolik mavjudligini modelga kiritish orqali savdo to'siqlarining ta'siri baholanadi.

O'zbekiston sharoitida iqtisodiyotdagi institutlar sifatini tavsiflovchi va savdoning axborot xarajatlarini ifodalovchi o'zgaruvchilarni log-log regressiya modeliga kiritgandan so'ng, eksport hajmi o'zgarishini quyidagicha ifodalash mumkin:

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Com.col_{.ij} + u_{ijt} \quad (1)$$

bu yerda  $X_{ijt}$  eksport hajmi o'zgarishi,  $GDP_{it}$  va  $GDP_{jt}$  i va j mamlakatning yalpi ichki maxsuloti,  $Pop_{it}$  va  $Pop_{jt}$  i va j mamlakatning aholisi,  $Dist_{ijt}$  i va j mamlakatlar orasidagi masofa,  $ROL_{it}$  va  $ROL_{jt}$  i va j mamlakatning qonun ustuvorligi indeksi bo'lsa,  $Com.col_{.ij}$  umumiy mustamlakachilik bo'lib, agar i va j mamlakatda umumiy mustamlakachi bo'lsa 1, aks holda 0 qiymatini oladi.

Birlashtirilgan OLS murakkabroq modellarni solishtirish yoki qurish mumkin bo'lgan oddiy mezon sifatida olinadi. Birlashtirilgan OLS kesishgan-guruh va vaqtli qator ma'lumotlarni birlashtirganligi sababli, bu usul panel ma'lumotlar tuzilmasini butunlay e'tiborga olmaydi. Bunday e'tiborsizlik esa noto'g'ri xulosalar qilishga olib kelishi mumkin (masalan: Cheng va Wall (2005)).

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Comcol_{ij} + \alpha_{ij} + u_{ijt} \quad (2)$$

bu erda,  $\alpha_{ij}$  - har bir juftlik uchun vaqt davomida o'zgarimas individual xususiyatlar.

Bunday holda, FE modeli yaxshi tanlov emas, chunki u samarasiz hisob-kitoblarni ishlab chiqaradi. Natijada, FE modeliga qo'shimcha ravishda, qarama-qarshi taxminlar ostida ishlaydigan Random effects (RE) (tasodifiy ta'sirlar) modeli qo'llaniladi.

Gravitatsiya modelining RE yondashuvi bo'yicha baholashni quyidagicha aniqlanishi mumkin:

$$\ln X_{ijt} = \alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6(ROL_{it}) + \alpha_7(ROL_{jt}) + \alpha_8 Comcol_{ij} + u_{ijt} + \varepsilon_{ijt} \quad (3)$$

bu yerda,  $u_{ijt}$  va  $\varepsilon_{ijt}$  mustaqil o'zgaruvchilar bilan bog'liq emas deb taxmin qilinadigan juft mamlakatlar o'rtasidagi va juft mamlakatlar orasidagi xatolik.

Kuzatilmagan heterogenlik muammosini yechish uchun Hausman-Taylor (1981) usuli taklif qilingan. Ushbu usul faqat modeldagi ma'lumotlardan foydalangan holda endogenlik muammolarini hal qiladigan instrumental o'zgaruvchi usulidir.

Gravitatsiyani modellashtirishning asosiy muammolaridan biri bu nol savdo hajmi muammosi. Log-log regression modelida nol savdo hajmi hisobdan chiqarib tashlanadi. Savdoning nol darajasi ikki mamlakat o'rtasida ijobiy savdo ko'rsatkichi bo'lmaganligini anglatadi (Kabir va boshq., 2017).

Santos Silva va Tenreyro tomonidan tavsiya etilgan Puasson-Pseudo-Maksimum-ehtimol (PPML) baholovchisi gravitatsiya modeli tenglamalarini baholashda allaqachon keng qo'llanilgan (masalan, Westerlund va Wilhelmsson, 2007; Xuepeng Liu, 2007; Hebble, Shepherd va Wilson, 2007).

Westerlund va Wilhelmsson (2006) ga ko'ra Gravitatsiya modelining PPML usulida baholashni quyidagicha belgilash mumkin:

$$X_{ij} = \exp\{\alpha_0 + \alpha_1 \ln(GDP_{it}) + \alpha_2 \ln(GDP_{jt}) + \alpha_3 \ln(Pop_{it}) + \alpha_4 \ln(Pop_{jt}) + \alpha_5 Dist_{ijt} + \alpha_6 (ROL_{it}) + \alpha_7 (ROL_{jt}) + \alpha_8 Comcol_{ij} + u_{ijt}\} \quad (4)$$

Ma'lumotlar to'plami O'zbekiston va uning 81 ta savdo hamkorlari uchun 2017-yildan 2020-yilgacha bo'lgan davrda to'plangan. Tahlilga kiritilgan kuzatuvlarning umumiy soni 324 tani tashkil etadi. Nol savdo qiymati 70 ta kuzatuvni tashkil etib, bu umumiy kuzatuvlarning 21,6 foizini tashkil etdi. Xulosa qilib aytadigan bo'lsak, yillik ma'lumotlar 2017-2020-yillar uchun bitta bog'liq o'zgaruvchi va sakkizta mustaqil o'zgaruvchisi bilan 81 ta davlatni qamrab oladi (jami  $N=324$ ,  $n=81$ ,  $T=4$ ).

Yuqorida aytib o'tilgan o'zgaruvchilar bilan panel ma'lumotlari tuzilgan. Panel ma'lumotlar va panel ekonometrik usullar gravitatsion modellashtirishda tobora ko'proq foydalanilmoqda (masalan, Egger, 2000; Rose va van Wincoop, 2001; Baltagi, 2003; Egger va Pfaffermayr, 2003; Egger va Pfaffermayr, 2004; Melitz, va boshqalar). Panel ma'lumotlar bazasining o'ziga xos jihati shundaki qo'shimcha vaqtli qatordagi ma'lumotlar ko'proq *erkinlik darajasini*<sup>12</sup> ta'minlaganligi sababli aniqroq hisob-kitoblarga ega bo'lishni ta'minlaydi.

OLS, FE, RE va Hausman-Taylor usullari bo'yicha gravitatsiya modelini baholash natijalari 1-jadvalda keltirilgan. 1-jadvalning 3-ustunidagi FE modelining natijalari mamlakatga xos effektlarni regressorlar bilan bog'lash imkonini beradi. 1-jadvalning beshinchi ustunida keltirilgan Hausman-Taylor usulini baholash natijalari kuzatilmagan tasodifiy ta'sirlar bilan izohlovchi o'zgaruvchilar o'rtasidagi korrelyatsiya muammosini hal qiladi.

Hauseman-Taylor modelidan olingan natijalar shuni ko'rsatadiki, O'zbekistonda aholi jon boshiga yalpi ichki mahsulotning o'sishi meva-sabzavot mahsulotlarining eksport qiymatining oshishiga olib keladi. Bu shuni anglatadiki,

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<sup>12</sup> Erkinlik darajasining kattalashishi ma'lumotlarning taqsimoti normal bo'lishini ta'minlaydi, bu esa determinantlar koeffitsientlarining to'g'ri, izchil va samarali bo'lishiga olib keladi.

qolgan barcha holatlar o'zgarmas bo'lganda, O'zbekistonda aholi jon boshiga daromadning 1 foizga oshishi meva-sabzavot eksportining 2,1 foizga oshishiga olib keladi. Boshqa o'zgaruvchilar o'zgarmas bo'lsa, import qiluvchi mamlakat aholisi sonining 1 foizga o'sishi O'zbekistondan meva-sabzavot mahsulotlari eksportining 1,3 foizga oshishiga olib keladi. O'zbekiston aholi jon boshiga YaIM va import qiluvchi mamlakat aholisi o'sishining eksportga ijobiy ta'siri gravitatsiya modelining asosiy taxminlariga mos keladi.

### 1-jadval.

#### Gravitatsiyaviy modelni baholash natijalari

	(1)	(2)	(3)	(4)
O'zgaruvchilar	OLS	FE	RE	Hausman-Taylor
$\ln GDP_{jt}$	0.771** (0.367)	0.556 (0.953)	0.771** (0.367)	0.853 (0.744)
$\ln GDP_{it}$	2.637*** (1.003)	2.090* (1.103)	2.637*** (1.003)	2.114** (0.927)
$\ln Pop_{jt}$	0.976*** (0.131)	-3.911 (6.479)	0.976*** (0.131)	1.318** (0.626)
$\ln Pop_{it}$	1.488 (4.624)	4.041 (5.420)	1.488 (4.624)	3.088 (4.407)
$\ln Dist$	-1.734*** (0.395)	-	-1.734*** (0.395)	-3.853** (1.899)
$ROL_{jt}$	-0.985** (0.442)	1.497 (1.288)	-0.985** (0.442)	1.469 (1.064)
$ROL_{it}$	12.53*** (4.470)	12.10** (5.723)	12.53*** (4.470)	11.09** (4.709)
$Com.Col_{ij}$	2.692*** (0.536)	-	2.692*** (0.536)	3.200 (2.963)
O'zgarmas qiymat	-35.54 (81.54)	-6.054 (133.3)	-35.54 (81.54)	-51.01 (81.15)
<b>Kuzatuvlar soni</b>	240	240	240	240
<b>P &gt; chi 2</b>	0.0000	0.0015	0.0000	0.0000
<b>R-kvadrat</b>	0.593	0.127	0.634	
<b>Juftliklar soni</b>	77	77	77	77

Eslatma: Qavslar ichidagi mustahkam standart xatolar uchun \*\*\* p<0,01, \*\* p<0,05, \* p<0,1 ni anglatadi.

Manba: Muallif hisob-kitoblari.

Gravitatsiya modelining nol savdo kuzatuvlarini o'z ichiga olgan holda PPML usuli orqali baholangan regressiya natijasi quyidagicha:

$$Exportvalue_{it} = -34.42 + 0.292 \log(GDP_{jt}) + 0.249 \log(GDP_{it}) + 5.726 \log(Pop_{jt}) - 2.076 \log(Pop_{it}) - 2.025 \log(Dist_{ijt}) + 2.884 ROL_{jt} + 7.943 ROL_{it} + 3.627 Com.Col_{jt} + u_t \quad (5)$$

PPML modeli natijalariga ko'ra eksport va import qiluvchi davlatlarning aholi jon boshiga yalpi ichki mahsulotining meva-sabzavot eksportiga ta'siri ijobiy va 99

foiz aniqlik darajasida statistik ahamiyatga ega. Ushbu o'zgaruvchilarning koeffitsientlari bir-biriga yaqin va mos ravishda 0,249 va 0,292 ni tashkil qiladi. Import qiluvchi mamlakat aholisining ta'siri 99 foiz aniqlik darajasida statistik ahamiyatga ega. Boshqa tomondan, import qiluvchi davlat aholisining 1 foizga ko'payishi O'zbekistondan meva-sabzavot eksportining deyarli 6 dollarga oshishiga olib keladi.

**Eksport salohiyati.** Bashoratli qiymatlar birlashtirilgan OLS tahlili orqali hisoblab chiqariladi (Sinaga, 2019). O'zbekiston meva-sabzavot salohiyatini o'lchash uchun eksport salohiyati ko'rsatkichi (EPI) tushunchasini joriy qildik:

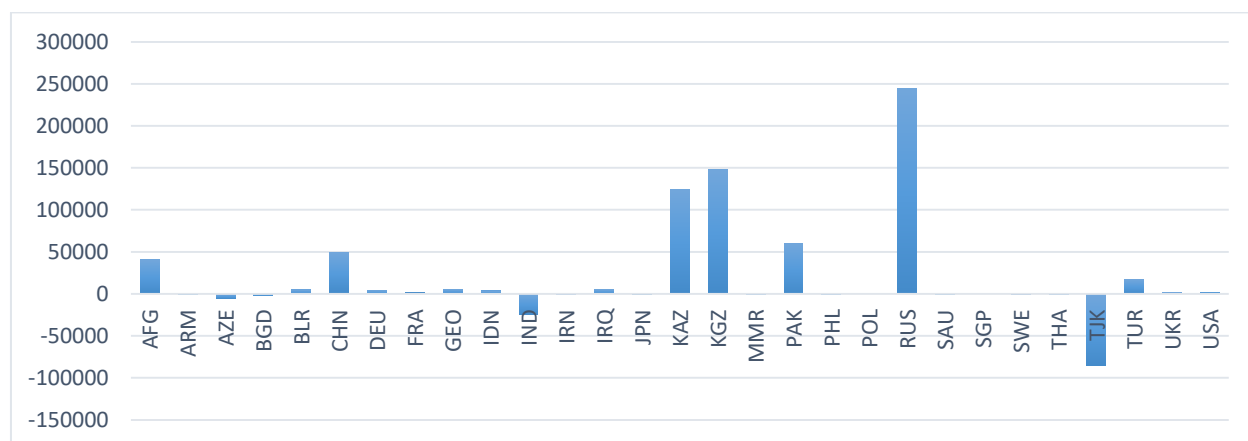
$$EPI_{ij} = EVE_{ij} - PVE_{ij} \quad (6)$$

Bunda,  $EVE_{ij}$  – 2020 yilda O'zbekistondan hamkor davlatlarga meva-sabzavot eksportining real qiymati;  $PVE_{ij}$  – 2020 yilda O'zbekistondan hamkor mamlakatlarga meva-sabzavot eksportining prognoz qilingan qiymati.

$$PVE_{ij} = \exp(\text{Predicted export value}_{ij}) \quad (7)$$

$$\begin{aligned} \text{Predicted export value} = & -35.54 + 0.771 \log(GDP_{jt}) + 2.637 \log(GDP_{it}) + \\ & + 0.796 \log(Pop_{jt}) + 1.488 \log(Pop_{it}) - 1.734 \log(Dist_{ijt}) + 0.985 \text{ROL}_{jt} + \\ & + 12.53 \text{ROL}_{it} + 2.692 \text{Com.Col.}_{jt} + u_t \quad (8) \end{aligned}$$

Ijobiy ko'rsatkichlar mamlakatda eksport hajmi ortib borayotganini ko'rsatsa, salbiy ko'rsatkichlar esa bu mamlakatlarga eksport salohiyatidan to'liq foydalanmayotganligini ko'rsatadi. Natijalar 4-rasmda ko'rsatilgan.



**4-rasm. Eksport potentsial ko'rsatkichi**

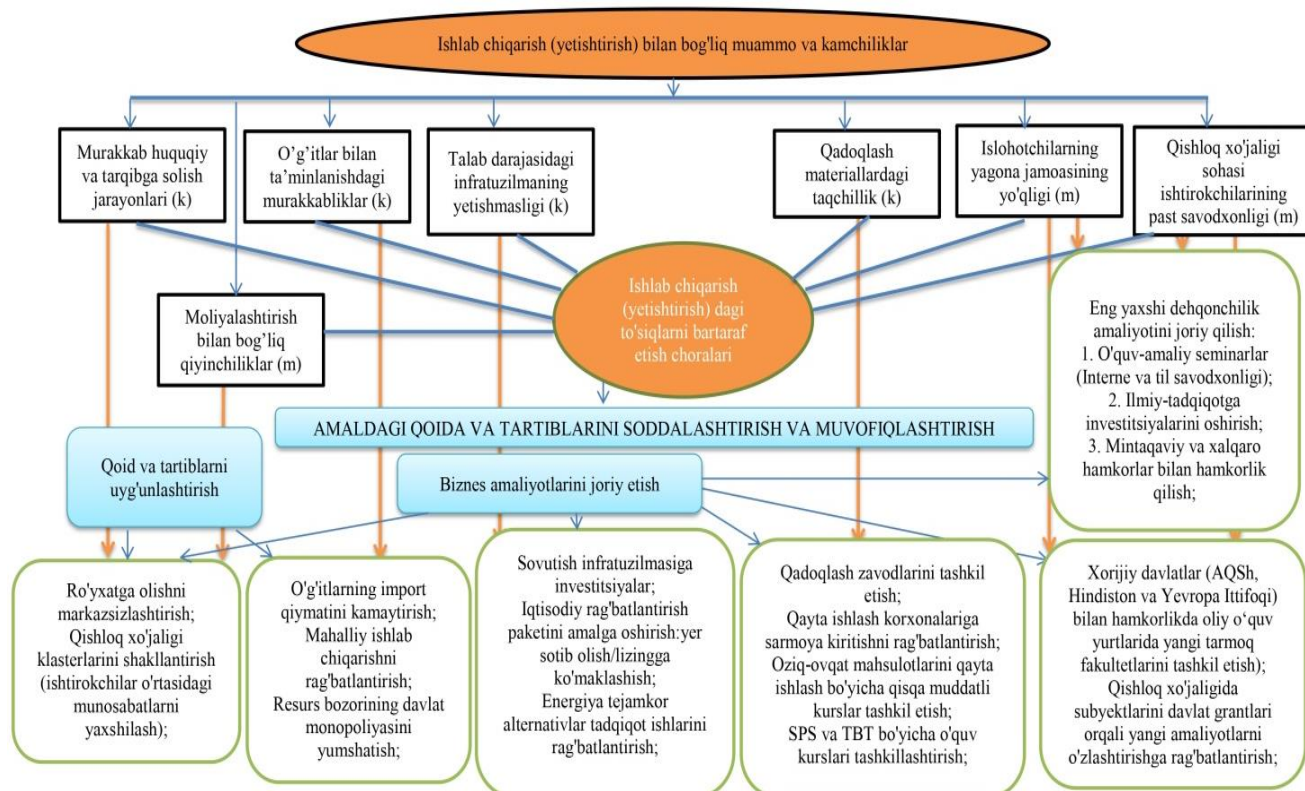
Manba: Muallif hisob-kitoblari asosida.

Grafikdan ko'rinib turibdiki, O'zbekiston meva-sabzavot mahsulotlari bo'yicha Rossiya Federatsiyasi, Qozog'iston, Qirg'iziston, Afg'oniston, Xitoy va Turkmaniston bilan samarali savdo qilmoqda. Biroq, Ozarbayjon, Hindiston,

Tojikiston kabi boshqa mamlakatlarga eksport qiymati shuni ko'rsatadiki, mamlakat savdoda ba'zi to'siqlarga duch keladi yoki savdo salohiyatidan to'liq foydalanmaydi. Bunday holda, shuni ta'kidlash kerakki, juda yuqori ijobiy ko'rsatkichlar iqtisodiyotni keskinlik darajasiga olib kelishi mumkin. Shunday qilib, olingan natijalarga asoslanib, mamlakat an'anaviy bozorlarga tayanmasdan, o'zining raqobatbardosh ustunligidan to'liq foydalanish uchun eksport bozorlarini kengaytirishi kerak.

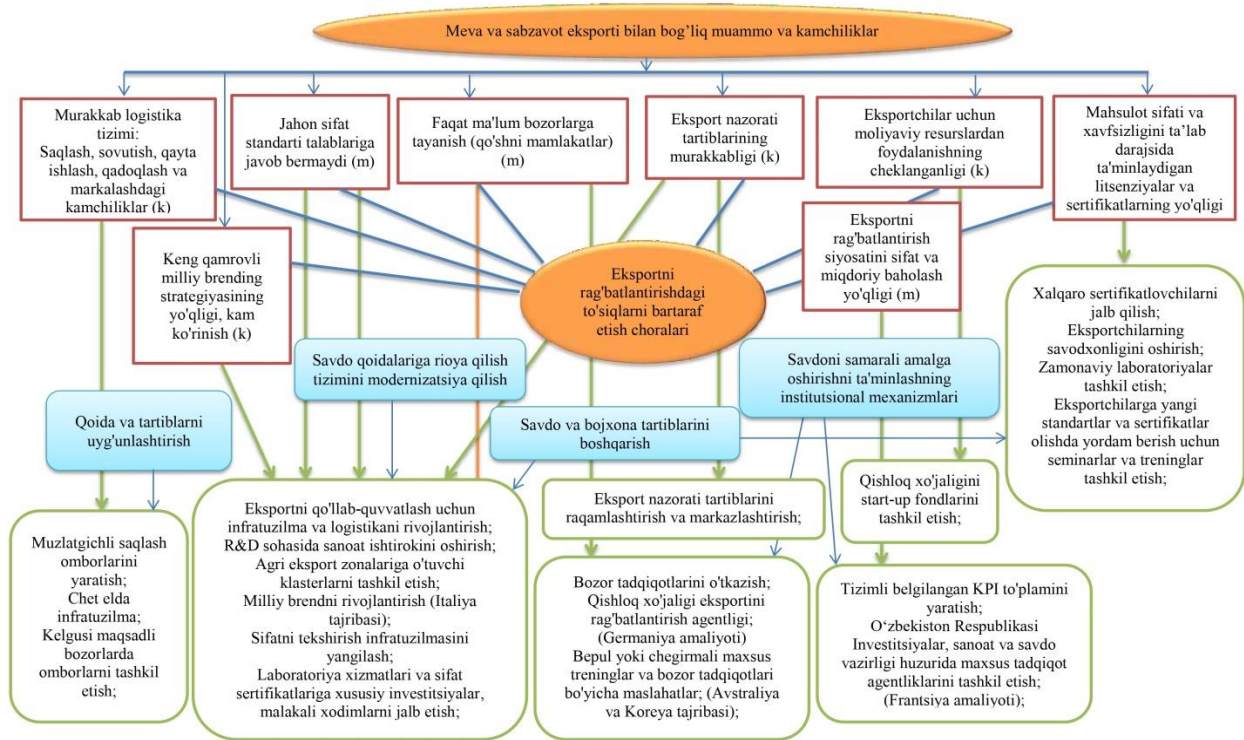
Tadqiqotning uchinchi bobi **“Meva-sabzavotchilik tarmog'ida yetishtirishni kengaytirish va O'zbekiston meva-sabzavot mahsulotlarini tashqi bozorlarga chiqarish yo'nalishlari”** deb nomalanib, ushbu bobda mamlakatimiz meva-sabzavotchilik sohasining bugungi holati, sohadagi mavjud muammo va kamchiliklar hamda imkoniyatlar izchil tahlil qilinib, meva-sabzavot yetishtirish va eksport qilish hajmini oshirish hamda tashqi bozorlarda tarmoq raqobatbardoshligini yanada oshirish bo'yicha mumkin bo'lgan tavsiyalar ishlab chiqilgan.

5-rasmda O'zbekiston Respublikasi meva-sabzavotchilik tarmog'i bilan bog'liq rasmiy hisobotlar va statistik ma'lumotlar tahlili asosida mavjud muammo va kamchiliklar o'rganilib, xorij tajribasiga (asosan, Hindiston, Italiya va Fransiya tajribasiga) tayangan holda muammolarni hal etishning mumkin bo'lgan yechimlarini ishlab chiqilgan. 6-rasmda O'zbekiston Respublikasida meva-sabzavotchilik tarmog'idagi savdo to'siqlarini bartaraf etish bo'yicha taklif etilayotgan chora-tadbirlar sohadagi mavjud kamchilik va muammolarni qiyosiy va tahliliy o'rganish asosida jamlangan.



**5-rasm. O‘zbekistonda meva va sabzavot yetishtirish bo‘yicha muammo va kamchiliklarni bartaraf etish sxemasi**

Manba: Muallif tomonidan shakllantirilgan



**6-rasm. O‘zbekistonda meva va sabzavot eksportini rag‘batlantirish to‘siqlarini bartaraf etish choralari sxemasi**

Manba: Muallif tomonidan shakllantirilgan

Hozirgi murakkab ijtimoiy-iqtisodiy va ekologik sharoitda, aholi ehtiyojlari ortib borayotgan bir sharoitda import qilinadigan meva-sabzavot o‘rnini bosish uchun ichki salohiyatimizdan to‘liq va samarali foydalanish, samarali nav va yo‘nalishlarni tahlil qilish orqali mahsulot va maqsadli bozorlarni diversifikatsiya qilish iqtisodiy o‘shishni rag‘batlantirib tarmoqni mustahkamlaydi.

O‘zbekistondan Yevropaga eksport salohiyati yuqori bo‘lgan mahsulotlar meva, paxta (mato) va sabzavotlardir. Meva mahsulotlarining potensial va haqiqiy eksporti o‘rtasidagi qiymat eng katta mutlaq farqni ko‘rsatib, 484 million dollarlik qo‘shimcha eksportni amalga oshirish uchun imkoniyat yaratadi. Yevropa Ittifoqi va G‘arbiy Yevropada eksportni diversifikatsiya qilishning eng yaxshi variantlari quritilgan yasmiq, yarim maydalangan yoki to‘liq maydalangan guruch va yangi yoki quritilgan sitrus mevalari hisoblanadi. O‘zbekistondan Yevropaga eksport qilish salohiyati yuqori bo‘lgan mahsulotlar yangi uzum, shaftoli va nektarinlardir. Shaftoli va nektarinlar qiymat jihatidan potensial va haqiqiy eksport o‘rtasidagi eng katta mutlaq farqni ko‘rsatib, 105 million dollarlik qo‘shimcha eksportni amalga oshirish imkoniyatini beradi. Ularning o‘ziga xos ta‘mi Yevropa Ittifoqi mamlakatlarida yuqori talabni ta‘minlaydi. Biroq, yuqori kirish talabi (sertifikatlar, saqlash, qadoqlash, qayta ishlashga qo‘yiladigan talablar) tovarlarni hali ham amalga oshirilmagan potensial sifatida qoldiradi.

Quritilgan mevalar nafaqat joriy yetishtirish va eksport qilish, balki salohiyati jihatidan ham O‘zbekiston qishloq xo‘jaligi tarmog‘ida muhim o‘rin tutadi.

Quritilgan mevalar eksporti O'zbekistondan jami eksportning 0,312 foizini va meva eksportining 8,6 foizini tashkil etadi. Saqlash va logistika tartibi yanada moslashuvchan va organik o'sish uchun mavjud shart-sharoitlar ushbu sektorni mustahkamlash uchun qulay imkoniyat yaratadi. Demak, quritilgan meva eksporti va uni ko'paytirishning tegishli usullarini ishlab chiqish O'zbekiston iqtisodiyotini rivojlantirishda muhim ahamiyat kasb etishi aniq.

Qishloq xo'jaligi mahsulotlari o'ta tez buziladigan mahsulotlar qatoriga kiritilganligi sababli, asosiy eksport yo'nalishlariga "Yashil yo'laklar"ni tashkil etish eksportni kengaytirish mexanizmlaridan biri bo'ladi. "Yashil yo'laklar"ning ochilishi ikki davlatga qishloq xo'jaligi mahsulotlari importi va eksportini tekshirish uchun past stavkalarni joriy etish imkonini beradi. Shuningdek, bojxona rasmiylashtiruvini tez va samarali amalga oshirish uchun "bir darcha" xizmati joriy etilishi kerak.

Hozirgi vaqtda organik dehqonchilik global tendensiya hisoblanadi. Mutaxassislarning fikriga ko'ra, organik mahsulotlarning jahon bozoridagi ulushi so'nggi besh yil ichida o'rtacha 15% ga o'sdi. 2022-yilda organik mahsulotlar bo'yicha tovar ayirboshlash 212 milliard dollarni (jahon qishloq xo'jaligi mahsulotlarining 20 foizini) tashkil etishi kutilmoqda. Bu amaliyot mamlakatimiz qishloq xo'jaligi tarixida alohida o'rin tutadi. Asrlar davomida shakllangan sabzavotchilik va bog'dorchilikning an'anaviy madaniyati biologik dehqonchilik tamoyillariga asoslanib, tabiiy o'g'itlardan foydalanishni o'z ichiga oladi. Bu gen modifikatsiyasi texnologiyalaridan foydalanmasdan yuqori ozuqaviy qiymati, o'ziga xos ta'mi va iste'mol xususiyatlariga ega bo'lgan organik (ekologik toza) meva va sabzavotlarni ishlab chiqarish imkonini beradi.

Xulosa qilib aytish mumkinki, O'zbekistonda qishloq xo'jaligi mahsulotlarini yetishtirishni rivojlantirish salohiyati an'anaviy ekin yetishtirish nuqtai nazaridan ham, yangi innovatsion format va texnologiyalarni qo'llash nuqtai nazaridan ham juda yuqori. Amalga oshirilayotgan islohotlar esa mavjud salohiyatni to'liq rivojlantirish, qishloq xo'jaligi mahsulotlari va butun agrosanoat majmuasining raqobatbardoshligini oshirishga qaratilgan. Amalga oshirilayotgan islohotlardan yuqori foyda olish va meva-sabzavot savdosidan mutlaq ustunlikka erishish uchun O'zbekiston o'z ixtisoslashuvini takomillashtirish, zarur infratuzilmani tashkil etish, qishloq xo'jaligi mahsulotlarini qayta ishlash va sotish tizimini takomillashtirishi kerak. Shunday qilib, bularning barchasi barcha manfaatdor tomonlar, hukumat, oliy muassasalar, davlat-xususiy subyektlarining tajribaviy ishtirokini, ishlab chiqaruvchilar bilimini oshirish, xorijiy tillar orqali zamonaviy fermerlik tajribasini o'rganish, raqamli texnologiyalar savodxonligi, sertifikatlashtirish standartlari va ularni olish jarayonlarini oshirish kabi siyosatni kompleks amalga oshirishni talab qiladi. Bundan tashqari, yetishtirish va savdo uchun to'siqlarini kamaytirish, mavjud ma'lumotlarga tayangan holda, yanada ishonchli amalga oshirilishi mumkin bo'lgan natijalarga erishish va aniqroq qarorlar va siyosat bo'yicha tavsiyalar qabul qilish uchun ekonometrik modellardan foydalanish uchun qishloq xo'jaligi ma'lumotlarini yig'ish tizimini mustahkamlash juda muhimdir.

## XULOSA

Tadqiqot natijalari bizga quyidagi xulosalar shakllantirishga imkon berdi:

1. O‘zbekiston qishloq xo‘jaligi savdosi misolida biz savdo hamkorlari o‘rtasidagi masofa va mamlakat daromadlari kabi savdoning asosiy determinantlarini ko‘rib chiqadigan gravitatsiya modelidan foydalanishga qaror qildik. Shu bilan birga boshqa savdo determinantlarini umumiy mustamlaka mamlakatlari va institutlarning mustahkamligi kabi omillarni ta‘sirini o‘rgandik. Ikki tomonlama savdo oqimlarining qiymati asosiy gravitatsiya modeliga ko‘ra, mamlakatlarning daromadlari bilan ijobiy bog‘liq va ular orasidagi masofaga salbiy ta‘sir qiladi.

2. Umumiy chegaralar, dengizga chiqa olmaydigan mamlakatlar va orol mamlakatlari, umumiy til, umumiy mustamlakachi, umumiy an‘anaviy ildizlar kabi ko‘plab savdoga ta‘sir etuvchi omillar mavjudligiga qaramasdan, ularning barchasi O‘zbekistonning meva-sabzavot savdosiga sezilarli ta‘sir ko‘rsatmaydi. Ayniqsa, ushbu omillarni savdoni nazorat qiluvchi va ta‘sir etuvchi omillar sifatida oladigan bo‘lsak, shuni tushuntirish mumkinki, O‘zbekistonda qonunlar, institutlar, me‘yorlar va jamiyat majburiyatlarining uzoq davom etuvchi tizimi har qanday biznes sohasiga, xususan, meva va sabzavot yetishtirish va eksport qilish tizimiga ham sezilarli ta‘sir ko‘rsatadi.

3. Ma‘lumotlar bilan bog‘liq bo‘lgan statistik va ekonometrik kamchiliklar bartaraf etishga tegishli choralar sifatida gravitatsiya modeli Pooled OLS, FE RE va Hausman-Taylor va PPML usullaridan foydalangan holda baholandi. Natijalardan O‘zbekistonda meva-sabzavot mahsulotlarining eksport salohiyatini baholash metodologiyasidan foydalanildi.

4. Hausman-Taylor usulidan olingan natijalarga ko‘ra, import qiluvchi davlatning yalpi ichki mahsuloti va O‘zbekistonning yalpi ichki mahsuloti bir foizga o‘shishi meva va sabzavotlar eksportini mos ravishda 0,85 va 2,11foizga oshiradi, tegishli mamlakatlarda aholi sonining 1 foizga oshishi mos ravishda ekport hajmini 1,31 va 3,088 foizga oshiradi. Hamkor davlatlar orasidagi masofaning 1 foizga oshishi eksportni 3,853 foizga qisqartiradi. Institutlar mustahkamligi elastikligi eksportni mos ravishda 1,469 va 11,09 foizga oshiradi va agar savdo qilayotgan mamlakatlar yagona mustamlaka mamlakatlaridan bo‘lsa, ular o‘rtasidagi savdo 3,2 foizga oshadi.

5. PPML yondashuvidan olingan natijalar, import qiluvchi davlatning yalpi ichki mahsuloti va O‘zbekistonning yalpi ichki mahsuloti bir foizga o‘shishi meva va sabzavotlar eksportini mos ravishda 0,290 va 0,248 dollarga oshiradi, import qiluvchi mamlakatlar aholisining 1 foizga oshishi eksport hajmini 6,021 dollarga ko‘paytiradi va eksport qiluvchi mumlakat aholising 1 foizga oshishi esa mos ravishda 1,833 dollarga eksportni kamaytiradi. Hamkor davlatlar o‘rtasidagi masofaning 1 foizga oshishi eksportni 2,079 dollarga qisqartiradi. Institutlar mustahkamligining elastikligi eksportni mos ravishda 2,887 dollar va 7,946 dollarga oshiradi va agar savdo qiluvchi mamlakatlar yagona mustamlaka mamlakatlaridan bo‘lsa, ular o‘rtasidagi savdo 3,369 dollarga oshadi.

6. O'zbekistonda meva-sabzavot yetishtirish bilan bog'liq muammolarni inobatga olgan holda, mahalliy ishlab chiqarishni rag'batlantirish, resurslar bozorida davlat monopoliyasini yumshatish, sovutish infratuzilmasiga investitsiyalarni o'z ichiga olgan tadbirkorlik amaliyotini joriy etish, energiya tejamkor muqobil variantlar bo'yicha ilmiy-tadqiqot ishlarini rag'batlantirish, qadoqlash zavodlarini tashkil etish, o'g'itlarning import narxini pasaytirish, iqtisodiy rag'batlantirish paketini amalga oshirish (qisman grantlar, soliq imtiyozlari, yer sotib olish/lizingga ko'maklashish), qayta ishlash korxonalariga yo'naltirilgan investitsiyalarni rag'batlantirish; oziq-ovqat mahsulotlarini qayta ishlash bo'yicha qisqa muddatli kurslar, sanitariya va fitosanitariya (SPS) va TBT bo'yicha o'quv kurslarini tashkil etish, xorijiy davlatlar (AQSh, Hindiston va Yevropa Ittifoqi) bilan hamkorlikda oliy o'quv yurtlarida yangi tarmoq fakultetlarini tashkil etish, o'quv-amaliy seminarlar (Internet va til savodxonligi) tashkil etish tavsiya etiladi.

#### **7. Savdo qoidalariga rioya qilish tizimlarini modernizatsiya qilish:**

Eksporni qo'llab-quvvatlash uchun infratuzilma va logistika, agro eksport zonalariga o'tish bo'yicha klasterlarni tashkil etish, milliy brendni rivojlantirish (Italiya tajribasi), sifatni tekshirish infratuzilmasini yangilash, laboratoriya xizmatlari va sifat sertifikatlariga xususiy sarmoya kiritish, malakali kadrlarni yollash savdoning raqobatbardoshligini oshirishni ta'minlaydi.

#### **Savdo va bojxona tartiblarini boshqarish:**

Eksport qiluvchilarning xabardorligini oshirish, tajribaga ega zamonaviy laboratoriyalarni joriy etish, eksportchilarga yangi standartlar bo'yicha yordam berish uchun seminarlar va treninglar tashkil etish orqali eksport nazorati tartib-qoidalarini raqamlashtirish va markazlashtirishni (eksport bilan shug'ullanuvchi barcha manfaatdor tomonlarni bir nuqtaga yig'ish) kuchaytirish, xalqaro sertifikatlovchilarni jalb qilish va sertifikatlar olish muammosini hal qilish uchun imkoniyatlar yaratadi.

#### **Savdoni samarali amalga oshirishni ta'minlashning institutsional mexanizmlari:**

Manfaatdor tomonlarning aniq belgilangan KPilarini yaratish, bozorni o'rganishni ta'minlaydigan siyosatni amalga oshirish jarayonlarini monitoring qilish uchun maxsus tadqiqot agentliklarini, shuningdek, qishloq xo'jaligi eksportini rag'batlantirish bo'yicha maxsus agentliklarni tashkil etish chora-tadbirlar samaradorligini ta'minlab tarmoq raqobatbardoshligini oshiradi.

8. Mahsulot turlari va maqsadli bozorlar bo'yicha diversifikatsiya faqat cheklangan iqtisodiy muhitga tayanib qolishning oldini oladi. Ushbu muammolarga qarshi kurashish uchun quyidagilar: qishloq xo'jaligi mahsulotlari ma'lumotlar bazasini ishlab chiqish va ma'lumotlar almashinuvi, karantin agentliklarining salohiyatini oshirish va o'qitish dasturlari, sanitariya va fitosanitariya (SPS) obyektlarini jalb qilish, organik dehqonchilikni qo'llab-quvvatlash va rivojlantirish, yashil yo'laklarni tashkil etish, axborot almashinuvini takomillashtirish, qog'ozsiz ishlashni amaliyotga joriy etish, savdo va eksportni rag'batlantirish salohiyatini takomillashtirish, jumladan sohaga oid ekspertiza, sertifikatlash tartib-qoidalari, organik dehqonchilikni rivojlantirish, malaka

oshirish, marketing va rag'batlantirishni takomillashtirish, barqaror fiskal va pul siyosatini, barqaror investitsiya rejimlarini va mustahkam moliyaviy tizimlarni, samarali monitoring va baholashni o'rnatish tavsiya etiladi.

Ilmiy-tadqiqot natijalarini amaliyotga tatbiq etish natijasida mahsulotlarning diversifikatsiya va O'zbekiston Respublikasi meva-sabzavot eksporti geografiyasi kengayadi, mamlakatning jahon savdodagi ulushi ortadi, qo'shimcha ish o'rinlari yaratiladi, qishloq infratuzilmasi yaxshilanadi, natijada aholi turmush darajasining oshishiga erishiladi.

**НАУЧНЫЙ СОВЕТ DSc.11/25.08.2022.I.24.03 ПО  
ПРИСУЖДЕНИЮ УЧЕНЫХ СТЕПЕНЕЙ ПРИ УНИВЕРСИТЕТЕ  
МИРОВОЙ ЭКОНОМИКИ И ДИПЛОМАТИИ**

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**УНИВЕРСИТЕТ МИРОВОЙ ЭКОНОМИКИ И ДИПЛОМАТИИ**

**КАРИМОВА ХУЛКАР РАХМАНАЛИ КИЗИ**

**МЕХАНИЗМЫ СОВЕРШЕНСТВОВАНИЯ ПРОИЗВОДСТВА И  
ЭКСПОРТА ФРУКТОВ И ОВОЩЕЙ В УЗБЕКИСТАНЕ В  
СООТВЕТСТВИИ С ТРЕБОВАНИЯМИ МИРОВОГО РЫНКА**

**08.00.09 – Мировая экономика**

**АВТОРЕФЕРАТ**

**диссертации на соискание ученой степени доктора философии (PhD) по  
экономическим наукам**

**Ташкент – 2023**

**Тема диссертации доктора философии (PhD) зарегистрирована Высшей аттестационной комиссией при Министерстве высшего образования, науки и инноваций в Республики Узбекистан за B2018.4.PhD/Iqt810**

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**Научный руководитель:**

**Султанова Гавхар Каримовна**  
кандидат экономических наук, доцент

**Официальные оппоненты:**

**Пьер Боргольц**  
доктор экономических наук, профессор

**Юнусов Насиржон Собирович**  
доктор экономических наук

**Ведущая организация:**

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С диссертацией можно ознакомиться в Информационно-ресурсном центре Университета мировой экономики и дипломатии (зарегистрирована за № \_\_\_\_\_). (Адрес: 100007, г. Ташкент, проспект Мустакиллик, 54. Тел.: (99871) 267-67-69; e-mail: [rektorat@uwed.uz](mailto:rektorat@uwed.uz)).

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**И.Р.Мавланов**

Председатель Научного совета по присуждению ученых степеней, доктор экономических наук, профессор

**Л.М.Ташпулатова**

Ученый секретарь Научного совета по присуждению ученых степеней, кандидат экономических наук, доцент

**Н.Сирожиддинов**

Председатель Научного семинара при Научном совете по присуждению ученых степеней, доктор экономических наук, профессор

## **ВВЕДЕНИЕ (аннотация диссертации (PhD) доктора философии)**

**Целью исследования** является разработка научных предложений и практических рекомендаций по внедрению механизмов совершенствования производства и экспорта плодоовощной продукции в Узбекистане в соответствии с требованиями мирового рынка.

**Объектом исследования** является плодоовощной сектор Республики Узбекистан.

**Предметом исследования** является механизм развития производства и экспорта плодоовощной продукции в Республике Узбекистан в соответствии с требованиями мировых рыночных стандартов.

**Научная новизна исследования** заключается в следующем:

Разработана систематическая схема теории гравитации в сельском хозяйстве, основанная на данных, методах и результатах систематизации классической и современной научной литературы по теории торговли в сельскохозяйственном секторе;

На основе традиционной гравитационной модели с применением методов pooled OLS, Fixed-effects, Random-effects, Houseman-Taylor и PPML, рассчитаны коэффициенты эластичности детерминантов экспорта фруктов и овощей; подсчитан экспортный потенциал плодоовощного сектора Узбекистана;

Разработан комплекс системных мер по устранению основных проблем и недостатков производства и экспорта плодоовощного сектора Республики Узбекистан;

Разработаны рекомендации по дальнейшему расширению производства и экспорта плодоовощного сектора в Узбекистане в соответствии с зарубежным опытом.

**Внедрение результатов исследования.** Результаты исследования и предлагаемые автором рекомендации могут быть использованы Министерством инвестиций, промышленности и торговли Республики Узбекистан, Агентством по продвижению экспорта при Министерстве инвестиций, промышленности и торговли Республики Узбекистан, а также другими заинтересованными сторонами, включая зарубежные организации, такие как Институт мировой торговли (WTI) при разработке мер реформирования, направленных на расширения производства и экспорта плодоовощной продукции. Выводы исследования могут быть также использованы в процессе вступления Узбекистана в ВТО.

Рекомендации, разработанные в ходе исследования, внедрены для использования Агентством по продвижению экспорта при Министерстве инвестиций, промышленности и торговли Республики Узбекистан для обеспечения эффективной реализации нормативно-правовых актов правительства: Постановление Президента Республики Узбекистан № ПП-4525 от 20.11.2019 - «О мерах по дальнейшему улучшению бизнес-среды и совершенствованию системы поддержки предпринимательства в стране», Постановление Президента Республики Узбекистан № ПП-4337 от

24.05.2019г. – «О мерах по расширению механизмов финансирования и страховой защиты экспортной деятельности», Постановление Президента Республики Узбекистан № ПП-4069 от 20.12.2018 г. – «О мерах по усилению содействия и стимулирования экспорта», Постановление Президента Республики Узбекистан № ПП-4707 от 07.05.2020 г. – «О мерах по дальнейшей поддержке экспортной деятельности», Постановление Президента Республики Узбекистан № ПП-4239 от 14.03.2019 г. – «О мерах по развитию сельскохозяйственной кооперации в плодоовощной отрасли», Постановление Президента Республики Узбекистан № ПП-4949 от 14.01.2021 г. - « О мерах по реализации экспортного потенциала республики узбекистан на 2021 год» и Постановление Кабинета Министров Республики Узбекистан № 826 от 31.12.2020 г. – «Об утверждении положения о порядке предоставления финансового содействия организациям-экспортерам агентством продвижения экспорта при министерстве инвестиций и внешней торговли республики узбекистан», Постановление Кабинета Министров Республики Узбекистан № 618 от 04.10.2021 г. – «Об утверждении положения о порядке возмещение части транспортных расходов при экспорте продукции» касательно:

повышения знаний и грамотности субъектов хозяйствования в сфере внешнеэкономической деятельности;

внедрения научного подхода в производство экспортоориентированной продукции, включая заготовку, переработку и хранение плодоовощной продукции;

обновления системы производства путем оказания помощи в сертификации и стандартизации, а также внедрение систем сертификации в стране;

повышения узнаваемости узбекских брендов за рубежом.

Предложения и рекомендации автора используются при реализации таких проектов, как «Made in Uzbekistan», «Национальная система электронной торговли Узбекистана» («NETP») для продвижения узбекских брендов и товаров на зарубежные рынки (Акты № 05-12-2/12-69 от 08.11.2022 и № 39-03/08/-1/4596 от 06.12.2022).

Агентством по продвижению экспорта при Министерстве инвестиций, промышленности и торговли Республики Узбекистан использованы результаты диссертации в процессе разработке государственных программ развития экспорта Республики Узбекистан для внедрения новых подходов и механизмов поддержки и облегчения экспортной деятельности.

Предлагаемые рекомендации были использованы в процессе практического исследования «Членство Узбекистана в ВТО: проблемы и возможности (на примере агропромышленности Узбекистана)», проведенного с участием международных экспертов Института мировой торговли и Всемирной торговой организации.

**Структура и объем диссертации.** Диссертация состоит из введения, трех глав и 9 параграфов, заключения, перечня использованной литературы и

приложений. Объем диссертации, включая приложения, составляет 168 страниц.

**LIST OF PUBLICATION**  
**E'LON QILINGAN ISHLAR RO'YXATI**  
**СПИСОК ОПУБЛИКОВАННЫХ РАБОТ**

**I part (I bo'lim; I часть)**

1. Sultanova G. and Karimova Kh. (2019). *Possibilities of developing a single food market in the countries of Central* , International journal of innovative technologies in economy, ISSN 2412-8368, 3-10 p.

2. Sultanova G. and Karimova Kh. (2022). *Determinants of Fruit and Vegetable Exports through the Gravity Model Approach: In The Case of Uzbekistan*. Change Management: An International Journal, ISSN 2327-9176, Volume 22, Issue 2, 506-574 p.

3. Karimova Kh. (2020). *Improving the Competitiveness of Agri-Food Industry and Promotion of Agri-Food Products in Foreign Markets (Empirical and Econometrical Analysis in Case of Uzbekistan)*. Journal of Eurasian Economies, Cambridge Scholars Publishing, ISSN 2822-2482, 383-394 p.

4. Karimova Kh and Rustamov J. (2020). *EU-Uzbekistan relations: why the current interest in agriculture trade?* Innovations in economy, ISSN 2181-9491

5. Karimova Kh. (2022). *Challenges and opportunities in fruit and vegetables export sector of Uzbekistan*. Academic research in educational sciences scientific journal, ISSN 2181-1385, Volume 3, Issue 2, 1011-1018 p.

6. Karimova Kh. (2022). *Examining fruit and vegetables sector and ways of promotion of Uzbek fruit and vegetables in foreign markets*. Oriental Renaissance: Innovative, educational, natural and social sciences, ISSN 2181-1784, Volume 2, Issue 2, 889-896 p.

7. Karimova Kh. (2022). *Trade issues of fruit and vegetable sector of Uzbekistan*. Moliya va Bank ishi Jurnal, ISSN 2181-8495, Volume 3, 55-59

8. Karimova Kh. (2023). *Agro- export in Uzbekistan: challenges and recommendation*. «Xalqaro munosabatlar: siyosat, iqtisodiyot, huquq», ISSN 2010-6203, Volume 1-2, 145-157 p.

**II part (II bo'lim; II часть)**

1. Karimova Kh. (2018). *Improving the competitiveness of agri-food industry and promotion of agri-food products in foreign markets*. "Agriculture Trade and Foreign Investments for Sustainable Regional Integration in Caucasus and Central Asia" in Baku

2. Karimova Kh. (2018). *Ўзбекистонда мева-сабзавот экспортининг ривожланиш тенденциялари*. О'zbekistonda iqtisodiyotni rivojlantirish va liberallashtirishning ustuvor yo'nalishlari va dolzarb muammolari, 176-178 p.

3. Karimova Kh. (2018). *Economic relations and trade: Uzbekistan*. Mapping EU-Central Asia relations, 18-19 p.

4. Karimova Kh. (2018). *The development and current status of food industry*

*of Uzbekistan. O'zbekistonda mustaqillik yillarida erishilgan ijtimoiy-iqtisodiy yutuqlar*, 265-267 p.

5. Karimova Kh. (2021). *International Agriculture Trade Theories*. Tashkent State Agrarian University, 2181-9491, 145-147 p.

6. Karimova Kh. (2021). *The global covid-19 pandemic effect of agriculture structure in Uzbekistan*. Tashkent State Agrarian University, 132-135 p.

7. Karimova Kh. (2022). *Development prospects of the fruit and vegetables exports in the Republic of Uzbekistan*. “Ўзбекистонда миллий тадқиқотлар: Даврий анжуманлар”. УУК 001 (062), 10-11 p.

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